

Lab Manual for Introduction to IT Lab System

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Experiment No. 1 (Learners have to use the features of web browsers for convenient browsing and searching.)

Aim : To use and analyze various features of web browser.

Resources Required

1. A computer system i.e. any PC/Laptop/Tablet/Smartphone
2. An internet Connection
3. An installed web browser software i.e. Mozilla Firefox, Google Chrome, Microsoft Edge. Etc.

Precautions

Use an updated web browser to protect from security breaches and browser vulnerabilities.

Theory

The browser helps us to perform convenient using its user interface and features. Common Browser Features are given below.

1. **Bookmarking:** It is the process of storing URI (Uniform Resource Identifier) for future retrieval. With this feature, users can store and manage web addresses of frequently visiting websites in their browser software. These web addresses can be accessed next time without providing their URI in the address bar. It is termed as favourites in the Microsoft Edge browser.
2. **Download management:** This is an inbuilt software tool for browsers that allows the users to manage all the downloaded files. It displays the files in chronological order and gives us the facility to search files by their name. We can also browse the folder where it is actually stored by 'show in folder' or 'open containing folder' option. We can open it by the user interface Ellipsis → Downloads or by pressing CTRL + J short cut key (works in chrome, MS Edge & Mozilla Firefox).
3. **Password management:** Browsers provide a facility to store usernames and passwords of websites that requires authentication. To protect this confidential information from other users of a computer, the functionality of the master password is incorporated
4. **Tabbed browsing:** It allows users to browse different websites simultaneously on different tab windows. All these tabs reside in a single web browser window.
5. **Browser history:** Browser can store all webpages visited by its user with associated data like the page title, time of visit, etc. so that user can revisit those webpages if necessary. All such data is stored locally on the browser.
6. **Form management:** This feature of the browser is also known as the auto-complete feature. It enables the user to auto-fill the web form entries of a user from its locally saved browser data.

7. **Spell checking:** This browser feature provides the capability to correct the misspelled words.
8. **Privacy mode:** Browsers introduced this feature to enhance the privacy surfing of its user. It allows users to surf the web without recording browsing history, cookies and form data of the user. Browser accomplishes this via the creation of a temporary session that is altogether separate from the main session and user data. It is known as "InCognito" in chrome browser and "inPrivate Browsing" in Microsoft Edge browser.
9. **Auto update:** This feature shows the ability of a browser for self-updating. Nowadays, almost every browser is capable of auto-updating.
10. **Ad blocking:** It is also termed ad filtering. Browsers having this feature are capable of blocking or altering online advertising. Generally, it is done with help of some browser extension.
11. **Incremental search:** This feature shows the ability of a browser to find matches on a webpage incrementally as search terms are typed in the search box.
12. **Page zooming:** It is the page-level capability of the browser to zoom in or zoom out the web content or images displayed on the webpage.

Some Popular Browsers:

Different search engines have their unique user interface, features and underlying technology. Some popular search engines are given below.

Microsoft Edge: It is developed by Microsoft and was firstly released in 2015 for its proprietary operating system Windows 10. It is the successor of the internet explorer web browser of the Microsoft family. It is also integrated with Microsoft's online platform for providing voice control searching functionality and dynamic content related to search inside the address bar.

Google Chrome: It is the most widely used web browser developed by Google. It is Cross-platform web browser that was firstly released in 2008 for the Windows Operating System of Microsoft. This browser is now a proprietary free ware based on Google's free and open-source software (FOSS) project "Chromium". It is widely used due to speed & security capabilities.

Mozilla Firefox: originally written in general-purpose scripting language- PHP. It is a free and open source browser developed by Mozilla foundation and its subsidiary Mozilla Corporation. It was initially released in September 2002.

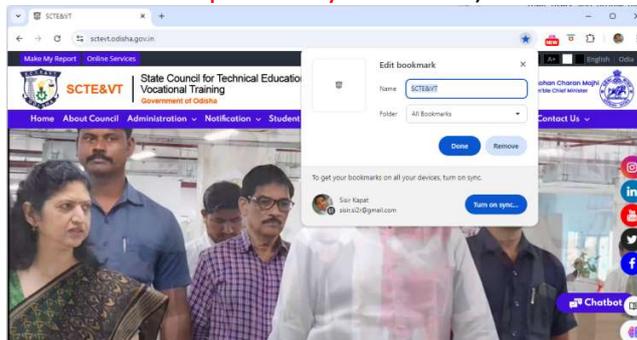
Opera: It is a multi platform browser developed by Opera software it was initial released in April 1995 it is also available for mobile devices and this mobile version are known as Opera Mini and Opera mobile.

Suggested Procedure

Browsers have some common features like bookmarking, download management, password management, Tabbed browsing, Incremental search, etc.

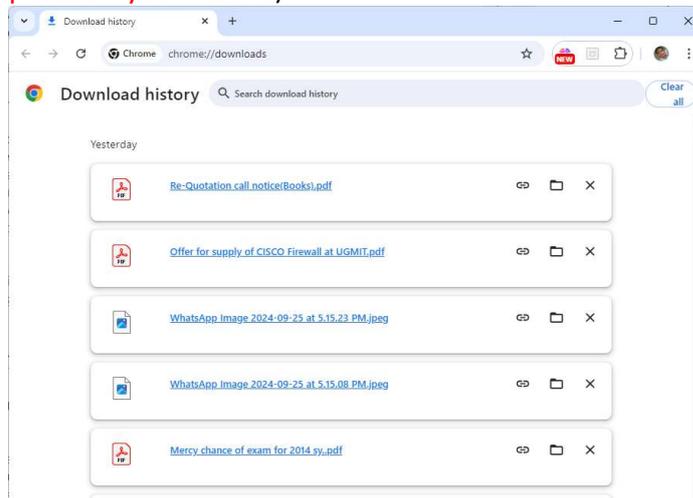
1. Bookmarking :

- search any web page on the web browser.
- Click on the star (*) mark on the right-hand side of the address bar.
- Write any suitable name for the bookmark. Choose a proper folder to save the bookmark.
- Click on 'done'. (or click on 'remove' to remove the bookmark) (take the screenshot and paste on your record)



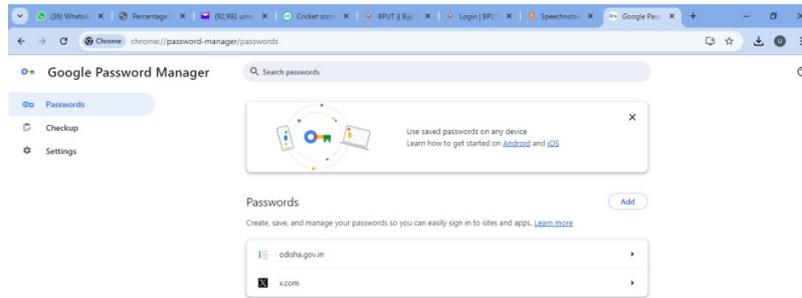
2. Download Management:

- Click on the three vertical dots on the top right-hand corner on the web browser, or click 'ctrl+j' to get download management.
- Observe the download history. Observe the links. (take the screenshot and paste on your record)



3. Password Management

- Click on the three vertical dots on the top right-hand corner on the browser.
> Click on password and auto fill > Click on Google Password Manager.
- Observe the Passwords for saved sites. Add the user ID and password for your E-mail ID. (Take the Screen Shot and paste on your record)

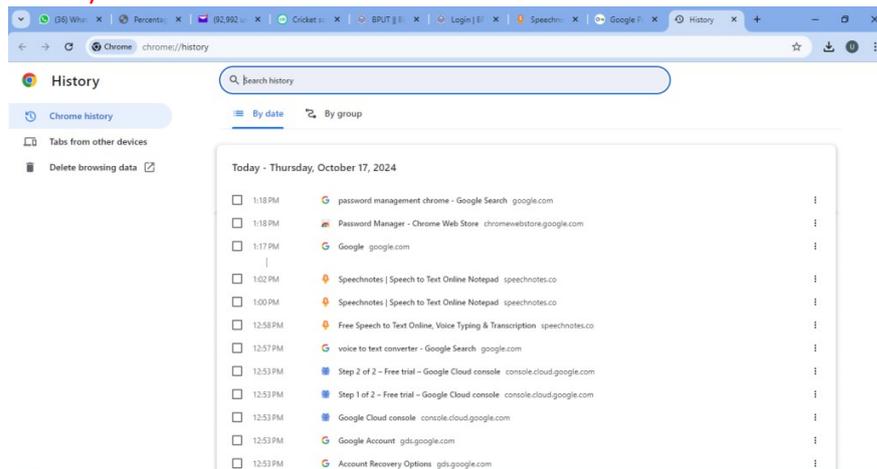


4. **Tabbed browsing:** Open any browser > Open at least five website by clicking the “+” sign in title bar. (Take the Screen Shot and paste on your record)



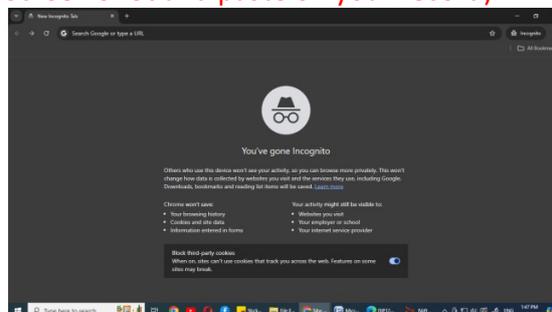
5. **Browser history:**

- Click on the three vertical dots on the top right-hand corner on the browser. > Click on history.
- Observe the Browser History. (Take the Screen Shot and paste on your record)



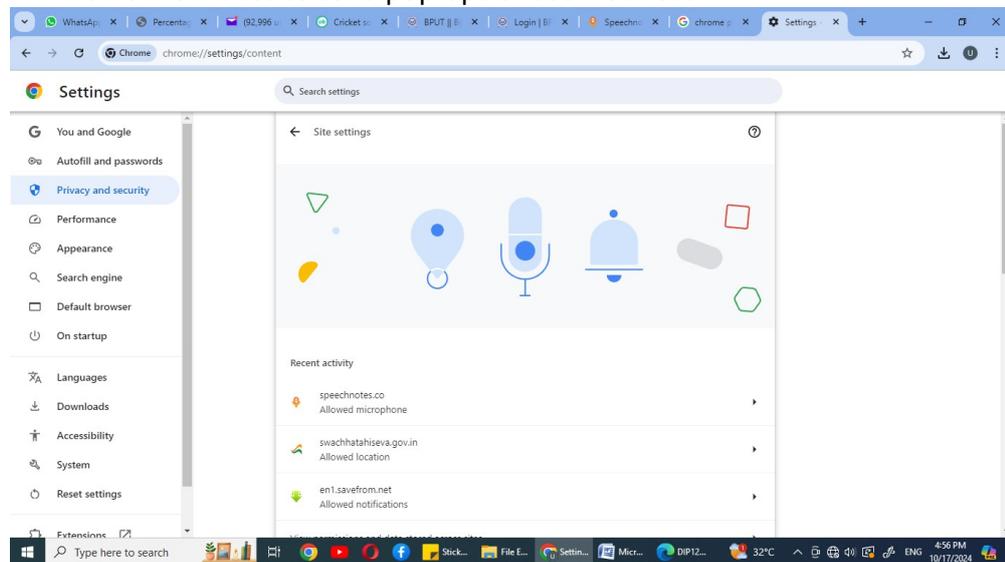
6. **Privacy mode:**

- Press Ctrl+Shift+N to activate the Privacy mode in your browser. (Take the Screen Shot and paste on your record)



7. Ad blocking:

- a. Open Chrome Browser and Click, Setting and more (three vertical dots) in the upper-right corner of the browser or Press Alt +E. A dropdown menu will be present.
- b. Click on settings.
- c. In the next window that opens, click on the “privacy and security” option on the left pane.
- d. Under “Privacy and security” options at right pane “Select Site Settings”.
- e. A new window with long lists of site setting will be presented. Under Content select “Pop-ups and redirects” then enable radio button having caption “Don’t allow sites to send pop-ups or user redirect”



Conclusion

From the above experiment, we analyzed and familiarized the different browser features.

Signature of the Student

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks''(.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	20	
4.	Viva voce	20	
Product Related: Marks* (.....%)			
5.	Screen shots and explanation of observation tables & conclusion made	30	
	Total	100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	

Experiment No. 2 Browsing using various search engines

Aim : To browse using various search engines.

Practical Significance

In the world of the Internet, there are more consumers of information than the producer. The principle is also propounded by the ISP's data allocation. Higher bandwidth is offered for data downloading than for uploading. Web browsers are user agents to search the available information on www. The process of information retrieval while navigating from one page to another through hyperlinks is termed browsing. Browsing & searching on the internet are now integral part of day-to-day computing.

Some Popular Search Engine Variants

Different search engines have their unique user interface, features and underlying technology. Some popular search engines are given below.

Google: It is the most trusted search engine worldwide. It was developed by Larry Page and Sergey Brin in 1996 for their academic research project. It was initially known as BackRub. It is written in C, C++ and Python programming languages. It is being used as a default search engine for various web browsers e.g., Chrome, Safari and Mozilla Firefox, etc. Google is using emerging technologies like artificial intelligence (AI), machine learning (ML) to recognize user behaviour, likings and other contextual information and produce better results for its users.

Microsoft Bing: It is owned and being maintained by Microsoft. It is the successor of previous search engines of Microsoft e.g., MSN Search & Windows Live Search. It was launched in June 2009 and written in ASP.NET. It provides a variety of search services like web, image, video and map. Unlike Google its home page provides various links to current news, weather and links to other information like "On this day in history"

Yahoo: This is the oldest search engine available to internet users. It is founded by Jerry Yang and David Filo in January 1994 as "Jerry and David's guide to the World Wide Web". This search engine is owned by Yahoo and originally written in general-purpose scripting language- PHP.

Baidu: It is among the top performer in the market share of search engines worldwide. It is owned by Chinese company Baidu, Inc. which is one of the largest artificial intelligence and internet companies in the world. It was incorporated in January 2000 by Robin Li and Eric Xu. This search engine holds more than 72% of the Chinese search engine market as of June 2021. It offers various services like Maps, Image search, Video search, patent search, legal search, games, etc.

Yandex: It is a search engine prevalently used in Russia and was launched in September 1997. It is owned by Yandex N.V., a Russian-Dutch domiciled multinational. Apart from image searching, video searching and web searching, it also provides other services like online text and website translator, maps, email, app analytics and marketing platform.

Duckduckgo: Last in our list of the search engine but not the least, Duckduckgo(ddg) is a favorite search engine for millions of users (mine too), especially who cares their privacy and want to keep their searching history anonymous. It is created by Gabriel Weinberg and owned by Duck Duck Go Inc. It was launched in September 2008 and its code is written in Perl, Java Script and Python. Many search engines record the search history of their users and profile their surfing, searching habits by giving an excuse for better-personalized search results. In contrast, Duckduckgo respects the privacy of its users and displays the same search results to it's all users for a given search query. It is against the online tracking of user's data and believes that "Your personal data is nobody's business".

Resources Required

1. A computer system i.e. any PC/Laptop/Tablet/Smartphone
2. An internet Connection
3. An installed web browser software i.e. Mozilla Firefox, Google Chrome, Microsoft Edge. Etc.
4. Access to various search engine websites (i.e google.com, yahoo.com, duckduckgo.com, bing.com, yandex.com, etc.) or installed browser extension of your preferred search engine.

Precautions

1. Use an updated web browser to protect from security breaches and browser vulnerabilities.
2. Browse valid search engine website with HTTPS & enabled padlock icon in address bar.
3. Download extension from authenticated app store and verify vendors. Follow information security best practices.

Suggested Procedure

Searching on various web browsers on a particular search engine:

1. Open Mozilla Firefox web browser and go to google search engine website i.e.. www.google.com
2. Insert any of your favorite search terms (like "nep 2020") in the search bar (or even in the address bar if it is set as your default search engine for the browser)

and then press the "Enter key" or tap on lens button if you are using mobile/tablet.

3. Several result pages (SERPs) will be presented. Customize this result to show only image types results. Click on the "images" button below the search bar.
4. Various images related to the search term will be presented. Click on the first image. It will show a new pane with the image enlarged.
5. Right-click on the image copy link address. Save this address in a text document (notepad) so that it can be reused for our observation Table 1.1.
6. Perform steps 4 & 5 for all three image results and parallelly update the observation Table 1.1.
7. Follow Table 1.1 for browser and search engine selection and update observations accordingly.

Observations

Table 1.1 : Browsing Result for Search term "nep 2020"

Sl. No.	Browser	Search Engine	Result		
			Time taken	URL of first results	URL of first 3 image result after applying any filter {i.e., Size, color, type, time etc.}
1.	Mozilla Firefox	google.com			
2.	Microsoft Edge	google.com			
3.	Google Chrome	google.com			
4.	Google Chrome	yahoo.com			
5.	Google Chrome	duckduckgo.com			
6.	Google Chrome	bing.com			
7.	Google Chrome	yandex.com			

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Results and Interpretation

1. "nep 2020" search query requested by Mozilla Firefox, Microsoft Edge & Google Chrome fetches the same number of results in variable time.
2. "nep 2020" search query requested by Google chrome browser for different search engines fetch the different number of search results with a different ranking.

Conclusions

1. The same search query requested by different web browsers fetches some different results even on the same search engine. Which is likely due to browser settings, cookies, etc
2. The search results of different search engines vary drastically.
3. The different browser has their interfaces to perform browsing & searching tasks.
4. Web results are dynamic depends on various factors like internet speed, time of day, search traffic on that between request machine and server, etc.

Signature of Student

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks”(.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	10	
4.	Viva voce	10	
Product Related: Marks* (.....%)			
5.	Preparation of observation tables	25	
6.	Screen shots and explanation of observation tables & conclusion made	25	
	Total	100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :		Signature of Teacher with Date	
Mark Awarded			
Process Related	Product related	Total	

Experiment – 3 (Searching)

Aim: To write search queries for effective searching in search engines.

Practical Significance

Search engine can be leveraged to get relevant results based on given search terms. It is very much relevant to acquire skills needed to effectively browse the internet to fetch the most relevant information from the ocean of information. i.e. www.

Google Search Symbols, Operators & Commands

Operator	Description	Example
Informational Search Queries		
define	Returns a definition of the given term	define tolerance
time	Returns the current time at a particular location	time Australia
to	Convert measurements from one unit to another	12 inches to feet
in	Convert measurements from one unit to another	650 EURO in INR`
translate	Translates the queried terms into another specified language	translate hello world german
map	Returns map result by giving map followed by location.	map Odisha
stocks	Returns stock information of given company name	stock Wipro
weather	Returns the weather forecast for the given location or ZIP code	weather Rayagada or 760051
-	Excludes search result that includes this term	Best tablets -drawing
	Returns search result that match terms on either side of the pipe. The Same as writing "OR" between search terms.	Computer tablets
@	Returns search results that match a particular social media site	aicte @facebook
#	Returns search result that include a special hashtag.	#largestvaccinedrive
""	Returns search results that include all terms within quotes in the exact given order.	"Gods own country"
*	Returns search results where any words can be matched in place of asterisk.	Best * Odisha
..	When placed between two number, returns search results that match within the number range.	Computer 30K..40K inr
()	Used group search terms and control the search logic of the query.	(Lata Mukesh) songs lyrics

Most Popular Search Operators		
cache:	Show Google’s cached version of specific page.	Cache:makeuseof.com
filetype:	Return only search results that match a particular file extension.	“ITSystems” filetype:ppt
related:	Returns other websites that are similar to the queried website.	Related:nytimes.com
site:	Returns only search results from a particular website.	Parenting site:https://www.unicef.org/india/
Other Search Operators		
inanchor:	Returns pages that are linked to using anchor text matching the search query.	inanchor: mental wellbeing
allinanchor:	Returns pages that are linked to using text matching the search query.	allinanchor: mental wellbeing
intext:	Returns Only search results that match in the page’s body	intext:no tobacco day
intitle:	Returns only search results that match in the page’s title.	intitle:india tourism
inurl:	Returns only search results that match in the page’s URL	inurl:indiaculture

Google advance search interface

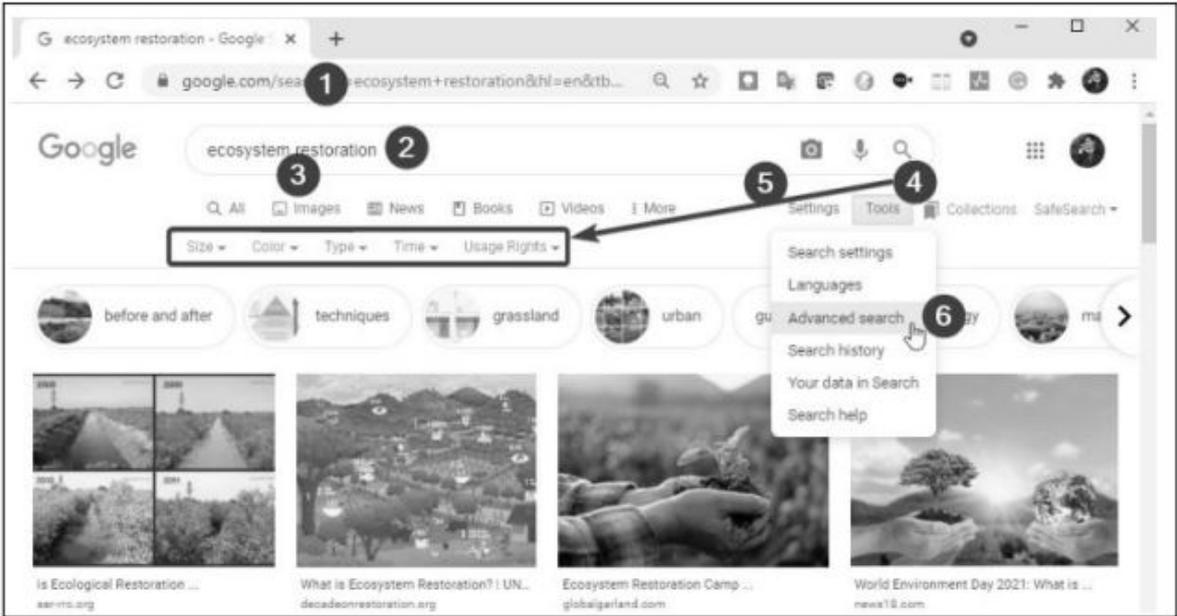


Fig. 1

The advanced search facility can be accessed from the user interface as depicted in figure (Fig.2) or we can access it directly by URL: [google.com/advanced_search](https://www.google.com/advanced_search).

Google
Advanced Search

Find pages with...

all these words:

this exact word or phrase:

any of these words:

none of these words:

numbers ranging from: to

Then narrow your results by...

language:

region:

last update:

site or domain:

terms appearing:

SafeSearch:

file type:

usage rights:

Advanced Search

Fig.2

Resources Required

1. A computer system i.e. any PC/Laptop/Tablet/Smartphone
2. An internet Connection
3. An installed web browser software i.e. Mozilla Firefox, Google Chrome, Microsoft Edge. Etc.
4. Access to various search engine websites (i.e google.com, yahoo.com, duckduckgo.com, bing.com, yandex.com, etc.) or installed browser extension of your preferred search engine.

Precautions

1. Use an updated web browser to protect from security breaches and browser vulnerabilities.
2. Browse valid search engine website with HTTPS & enabled padlock icon in address bar.
3. Download extension from authenticated app store and verify vendors.
4. Follow information security best practices.

Suggested Procedure

Writing search queries

1. Open google chrome web browser and open google search engine website i.e. www.google.com.
2. Retype the previously given search term (like “nep 2020”) with the different search operators. Update the result in the observation table by using the search operator on after the other and in combination. An example is also listed in table 1.8.

Observations

Table 1.8: Search Queries

Sl. No.	Search Query on Google.com	Result	
		URLs of the first 3 result	Screen Shot of the first page of SERP
1.	nep 2020 file type: ppt		
2.	nep 2020 filetype : pdf		

Results and Interpretation

1. Search query fetches reliable and useful content about the "nep 2020" search term. It fetches only PowerPoint presentations in the first query of Table 1.2.
2. Second query fetches confined results of portable document format from government websites i.e... gov.in or nic.in

Conclusions

1. The same search query requested by different web browsers fetches some different results even on the same search engine. Which is likely due to browser settings, cookies, etc.
2. The search results of different search engines vary drastically.
3. The different browser has their interfaces to perform browsing & searching tasks.
4. Web results are dynamic depends on various factors like internet speed, time of day, search traffic on that between request machine and server, etc.

Signature of the student

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks”(.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	10	
4.	Viva voce	10	
Product Related: Marks* (.....%)			
5.	Preparation of observation tables	25	
6.	Screen shots and explanation of observation tables & conclusion made	25	
	Total	100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	

Experiment 4: To use the Open Office Writer tool of Apache Open Office

Aim: To use the Writer component of Apache Open Office to create a Teacher's Profile.

Resources required

1. A computer system
2. Installed Apache open Office software

Precautions

1. Backup and save your working document periodically take it from Data loss.
2. Analyse space size, layout, slide layout as per proforma/slide belongs created.

Suggested procedures

proforma of a teachers profile

The sample proforma depicted in figure 4.34 (page 145) should be created in writer program for quick formatting and provided layout, although it can be created in other components as well.

1. Open a new writer document
2. Go to the format → page → page tab, choose paper size, margin etc.
3. Type the top 7 rows and format the rows to look like in the given proforma, using the basic formatting command available in the formatting toolbar.
4. Create a table having four columns and 9 rows to accommodate content provided in proforma for academic / professional qualification. To do go to insert → table or press Ctrl +F12
5. Merge columns of row 1 and row 6 by selecting their cell → right-click → Cells → merge. Adjust the size of columns by dragging the borders.
6. Apply text formatting, commands like center, background colour, font size, and type as specified in the given proforma.
7. Create another table for experience details via the following steps similar to steps 4 to 6.
8. Create a numbered list for collecting experience details. Type underscore three times and then press enter to insert a line as a given in proforma.

TEACHER'S PROFILE				
		YEAR:		
Employee's code	:	U-DISE Code No.	:	
Name of the teacher	:	State/UT	:	
Date of birth	:	District	:	
Designation	:	Block	:	
School's address	:		:	
Academic/Professional Qualifications:				
Academic Qualifications:				
Examination	University/ Board	Year	Subjects	
Graduation				
Post-Graduation				
Ph.D.				
Professional Qualifications:				
D.Ed./D.B.Ed./Bq.				
B.Ed./Equivalent				
M.Ed.				
Experience:				
Experience	Period		Total	
	From	To	Year	Months
Teaching				
Administrative				
Other				
Achievements/Awards (if any):				
1. _____				
2. _____				
Signature of Teacher				

Fig. 4.34: A Template Proforma for Teacher's Profile

Conclusion:

1. From the above experiment I learn about use of Writer.
2. I created a teacher's profile as shown in figure.

Signature of the student

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks”(.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	10	
4.	Viva voce	30	
Product Related: Marks* (.....%)			
5.	Preparation of Writer document with proper text formatting, coloring and alignment of text boxes, tables.	30	
Total		100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	

Experiment 5: To use the Open Office Calc tool of Apache Open Office

Aim: To use the Calc component of Apache Open Office to create a Receipt proforma where the calculations should be done automatically.

Resources required

1. A computer system
2. Installed Apache open Office software

Precautions

1. Backup and save your working document periodically take it from Data loss.
2. Analyse space size, layout, slide layout as per proforma/slide belongs created.

Suggested procedures

Proforma for Receipt

The sample proforma depicted in figure 4.35 (page 146) should be created in CALC program for quick formatting, layout and calculation needs. There may be different ways to prepare such document. One sequence of steps is mentioned below.

1. Open a new CALC document.
2. Go to format → page → page tab, choose paper size, margin, etc.
3. As depicted, content has a maximum of four columns of data so all text layout can be adjusted in four columns.
4. Merge first three cells of row 1 and type name of the company i.e. Shyam Techno Services. Merging can be done via the merge cell command provided on the formatting toolbar.
5. Insert and Merge other content as per the given layout.
6. Apply various text formatting commands e.g. Font type, size, background colour, alignment of text to make our document identical to the given proforma (as much as possible). You may use "format Paintbrush" for quicker formatting.
7. To present numbers with decimal fraction: right-click on cell → format cells → number → options, set decimal places to 2.
8. Apply formulas for calculating amount, subtotal, tax and total.

Shyam Techno Services		<u>RECEIPT</u>	
[Street Address]			
[City, ST ZIP]			
Phone: 8001234567	INVOICE #		DATE
	20215		10-08-21
BILL TO		CUSTOMER ID	TERMS
[Name]		564	Due Upon Receipt
[Company Name]			
[Street Address]			
[City, ST ZIP]			
[Phone]			
[Email Address]			
DESCRIPTION	QTY	UNIT PRICE	AMOUNT
Service Fee	1	200.00	200.00
Labor: 5 hours at 200 ₹ /hr	5	200.00	1,000.00
Parts	1	1,750.00	1,750.00
<i>Thank you for your business!</i>	SUBTOTAL		2,950.00
	GST		18.000%
	TAX		531.00
	TOTAL		INR 3,481.00
If you have any questions about this invoice, please contact [Name, Phone, email@address.com]			

Fig 4.2

Conclusion:

1. From the above experiment I learn about use of Calc.
2. I created a receipt proforma as shown in figure.

Signature of Student

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks”(.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	10	
4.	Viva voce	30	
Product Related: Marks* (.....%)			
5.	Preparation of Calc document with proper formatting, alignment of text boxes, and formula creation.	30	
Total		100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	

Experiment 6: To use the Open Office Impress tool of Apache Open Office

Aim: To use the Impress component of Apache Open Office to create a presentation on Start-up India.

Resources required

1. A computer system
2. Installed Apache open Office software

Precautions

1. Backup and save your working document periodically take it from Data loss.
2. Analyse space size, layout, slide layout as per proforma/slide belongs created.

Suggested procedures

Presentation on startup India campaign

By looking at the figure 4.36 (page 148) we have to develop the slide. First slide is having one image (write upper corner) and 5 text sections with different formatting styles. Slide 2 is having six text segments for infographic and one for the heading of the slide. The slide is also having some numbering on the left upper corner of text segment. We may follow the below steps to create our presentation to like the given template.

1. Open a new impress presentation with presentation wizard.
2. Select blank Layout from tasks pane.
3. Insert text with text icon from text toolbar or drawing toolbar or by pressing the F2 key.
4. Similarly, insert other text segments and input desired data on them. Apply formatting options like background colour, font size, font colour, font style, numbering.
5. Find the startup India logo on a search engine, insert and place it on right upper corner.
6. Insert a new slide by right click on the slides pane and then click new slide.
7. Insert a text segment for heading and apply formatting options as given in the template.
8. Insert another text segment and type the text for the first information. Apply text formatting.
9. Select the text box and fill it with colour by properties pane → area → fill drop down to colour and choose the desired colour.
10. To insert numbering with a circle; create a circle with help of an ellipse icon. Double click to insert the numbering value. Fill it with the desired colour as in the previous step.
11. Select text box and circle shape and recreate another text segment with numbering by copying and pasting. Make desired changes as per the second information box of the slide.
12. Place the segments by drag and drop or by keyboard navigational keys.
13. Repeat step 11, for the next four text segments and numbering

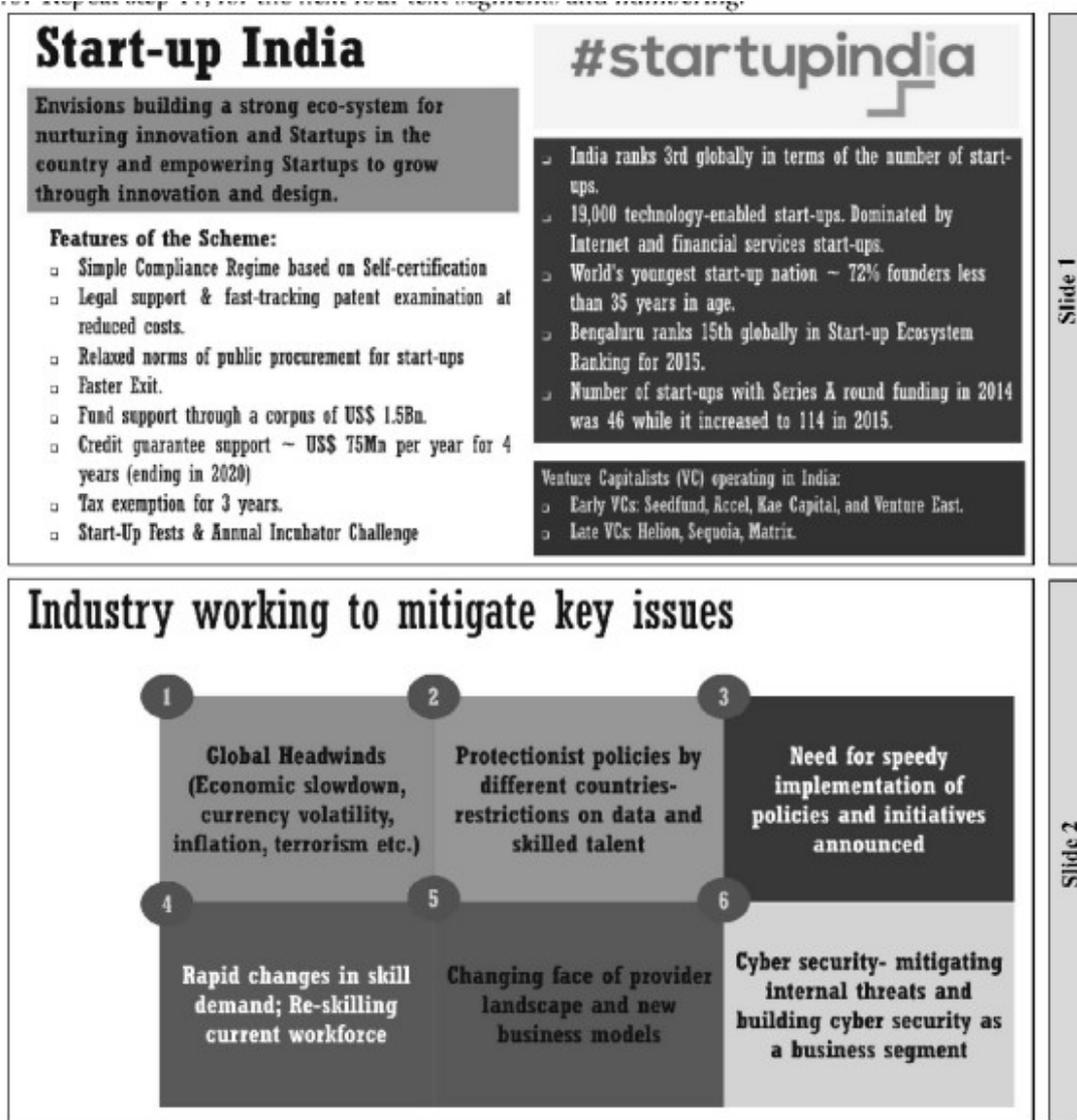


Fig 4.36 (page 148)

Conclusion:

1. From the above experiment I learn about use of Impress.
2. I designed a presentation as shown in figure.

Signature of Student

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks”(.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	10	
4.	Viva voce	30	
Product Related: Marks* (.....%)			
5.	Preparation of Impress document with proper text formatting, alignment of text boxes, images, etc.	30	
Total		100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student			Signature of Teacher with Date
.....			
Mark Awarded			
Process Related	Product related	Total	

Experiment 7: Operating System Installation

Aim: Install Linux operating system on identified lab machine and explore various option.

Resources Required

1. A computer system with following recommended configuration.

Component	Recommended Specification
Processor	2 GHz dual core
RAM	4GB
Storage	25 GB
VGA	1024 X 768 screen resolution
Internet Access	Not Mandotray but it helps install updates and other programs

2. An internet connection.
3. A bootable media having the Linux Ubuntu operating system on it.

Precautions

1. All important data should be backdrop before starting the installation process.
2. Recommended system requirements should be checked before the installation process.
3. Besides minimum system requirement, you must also consider the compatibility of the specific components installed in the PC i.e., check whether all of your Software and Hardware will be available in the New Year version of OS?
4. If we installing Windows OS keep the serial key handy.

Relevant theory

Linux operating system is the most popular open-source operating system around the world. It is termed Open Source because the source code of the operating system is not hidden but available to everyone. The open-source operating system has many advantages and it has a larger community for providing support.

Linux Operating system is invented by a resident of Finland in 1991, Linus Torvalds. Due to open-source code, there are many distributions of the Linux operating system. Ubuntu is a famous Linux distribution for desktops, servers and personal computers.

Suggested procedure

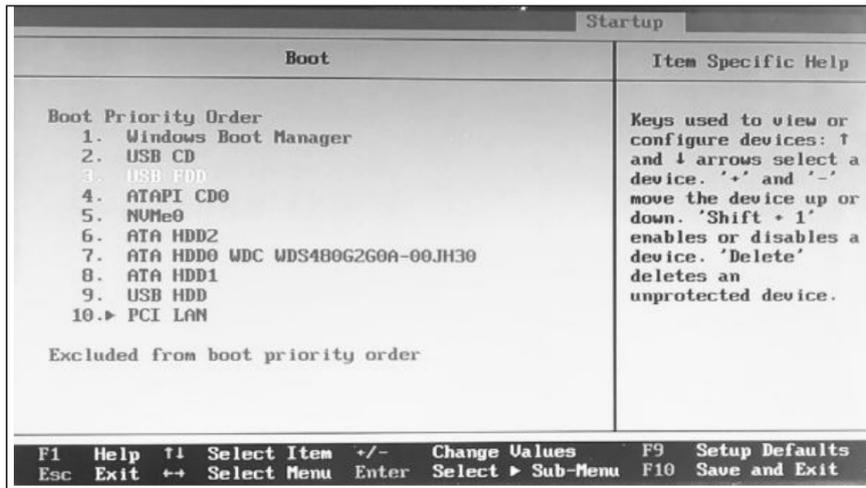
Task 1 - Installation of Ubuntu

Step 1 - download latest version Ubuntu

Step 2 - create bootable media (live USB)

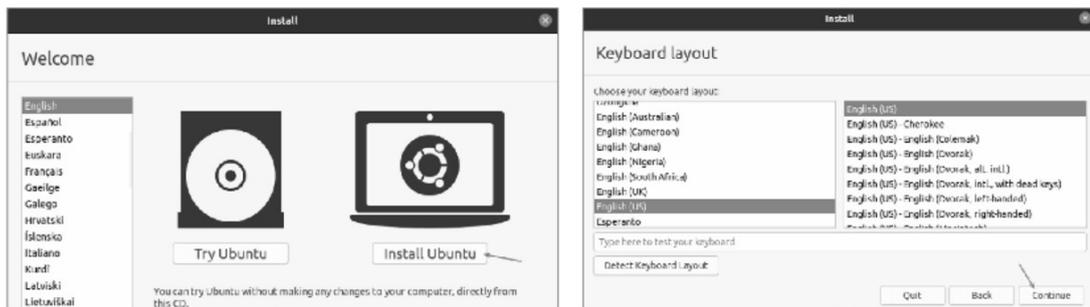
Step 3 - boot from the bootable media

1. Plug the prepared live event to USB disk into our system.
2. Now I need to set the booting sequence to USB disc instead of HDD.
3. This is done by changing boot priority in the BIOS setting at the time of computer start. Restart the computer and access to BIOS setting by pressing function keys F1 or F2 or F10 or F12 (Or any other)
4. Save and exit BIOS setting. **(Take the screenshot and paste here).**

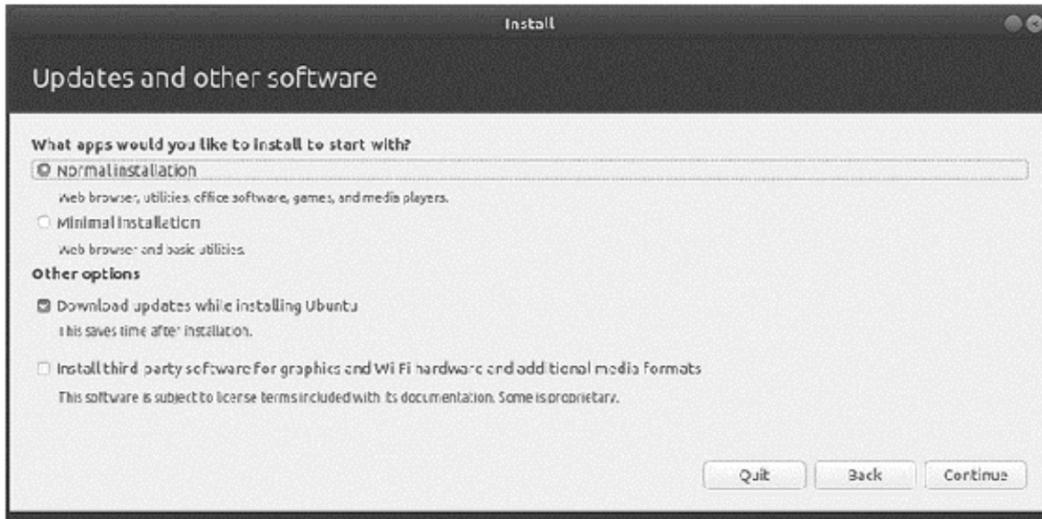


Step 4 - Install Ubuntu

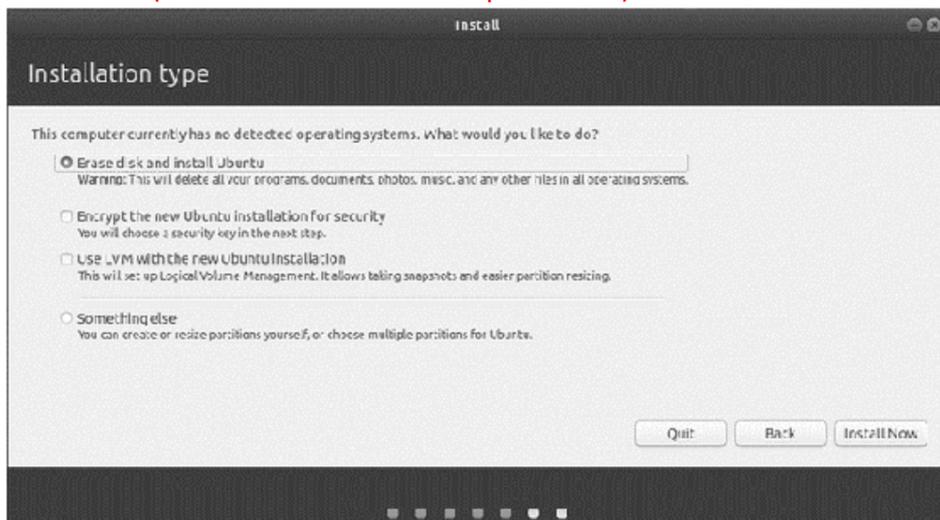
1. The booting process will begin once a boot media is detected by the BIOS. The installer will check the disc. The system will prepare to install Ubuntu operating system.
2. After a file will see the Ubuntu 20.04 welcome page As soon in figure. Here we have to click the installment option.
3. Next, select the language and click continue.
4. There after, select the keyboard layout and click the continue as soon in figure. **(Take the screen shot and paste here)**



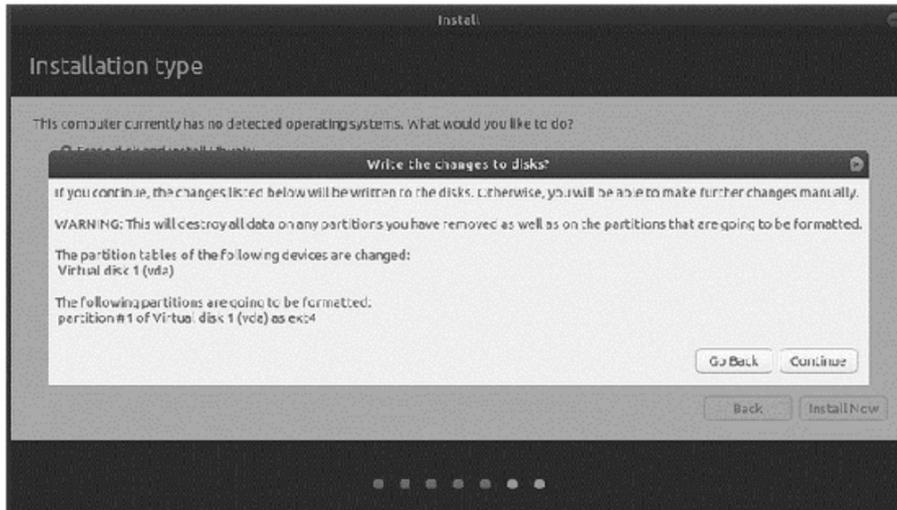
5. Now we have to select the types of hours we want to begin with we may choose any of the available option i.e. Normal or minimal. We can instruct the installer to update the oven to while installing by checking the check mark option. **(Take the screen shot and paste here)**



6. In this type we have to choose the actual installation type various options are soon in figure. Which is the option fast i.e. "erase this can install Ubuntu" for a fresh installation. (Take the screen shot and paste here)



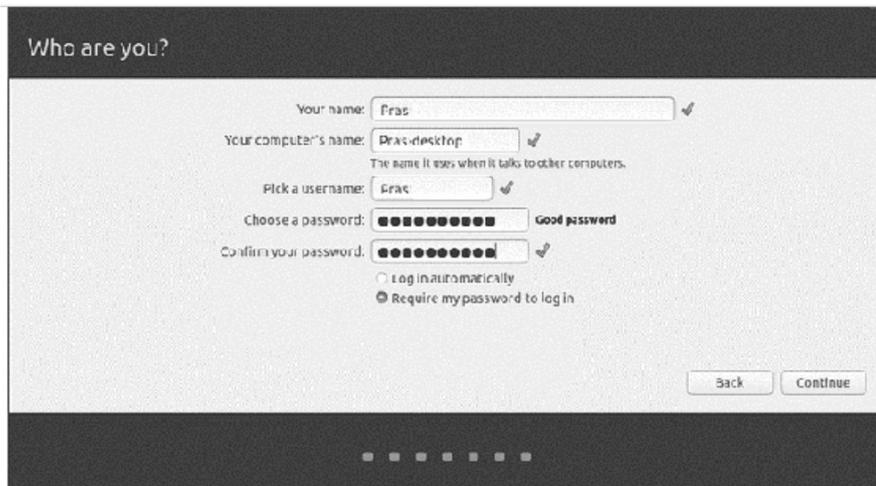
7. Back clicking on install. About the disc formatting. As you took backup so just hit on the continue option. (Take the screen shot and paste here)



8. In figure we have to select the time zone i.e. "Kolkata" then press continue. (Take the screen shot and paste here)



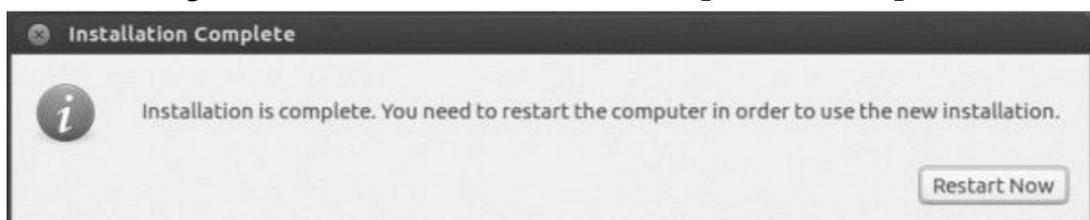
9. Now we will be asked to create login credential and name of the computer. Click on "continue" button after telling "who are you". (Take the screen shot and paste here)



10. Now you have to wait for 5 to 10 minutes. Mean while, we will be presented a slideshow about the feature of Ubuntu and basic tea for using the OS. (Take the screen shot and paste here)



11. After completion of the installation process will be presented installation complete dialogue box as soon in figure, just hit the ' restart now' option to complete the installation process. (Take the screen shot and paste here)



12. Remove the USB media, ubuntu will boot from hardy's and we will be shown the Ubuntu home screen as depreciated in figure.



Observation

Sl. No.	System Configuration (HDD, CPU & RAM)	OS version to be installed	New file System	New Partition Sizes	Time Taken For installation	Key Features of the OS

Conclusion:

From the above experiment I learn How to install linux Ubuntu Operating System in a Computer.

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks''(.....%)			
1.	Creation of Bootable Media	10	
2.	Changing Boot sequence order, defining file system and partition sizes	10	
3.	Explanation of Practical Components	10	
4.	Procedure adoption and step-by-step explanation	10	
5.	Viva voce	10	
Product Related: Marks* (.....%)			
6.	Preparation of observation tables	25	
7.	Screen shots and explanation of observation tables & conclusion made	25	
Total		100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	

Experiment 8: Operating System Installation

Aim: Install Windows 10 operating system on identified lab machine and explore various option.

Resources Required

1. A computer system with following configuration.

Component	Minimum Specification
Processor	1 GHz
RAM	1 GB for 32-bit or 2 GB for 64-bit
Storage	32 GB
Graphics Card	Dierct X 9 compatible
Display	800 X 600 screen resolution
Internet Access	Some version of Windows 10 required internet connection during setup

2. An internet connection.
3. A bootable media having the windows 10 operating system on it.

Precautions

1. All important data should be backdrop before starting the installation process.
2. Recommended system requirements should be checked before the installation process.
3. Besides minimum system requirement, you must also considered the compatibility of the specific components installed in the PC i.e., check whether all of your Software and Hardware will be available in the New Year version of OS?
4. If we installing Windows OS keep the serial key handy.

Relevant theory

Microsoft Windows Operating System have a long history of successful Operating system. The Windows OS family has various variants over time. These can be observed easily on our nearby computers. Some recent popular members were Windows XP, Windows 7, Windows 8, Windows 10 and windows 11.

Suggested procedure

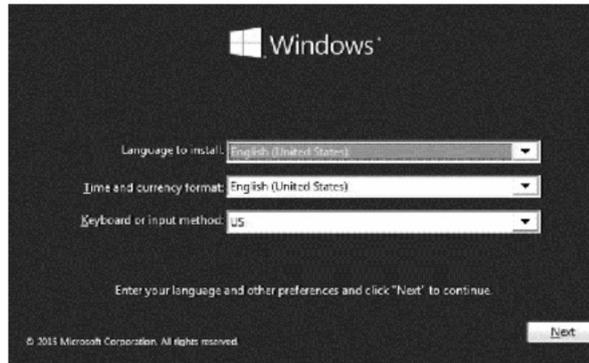
Windows installation

Step 1 - Download Windows 10

Step 2 - Boot from the bootable media

Step 3 -Install Windows 10

1. Will get the first screen as given in figure. 2G language, time and currency format and keyboard or input method from provided drop down boxes. Click "next". **(Take the Screen shot and paste here)**



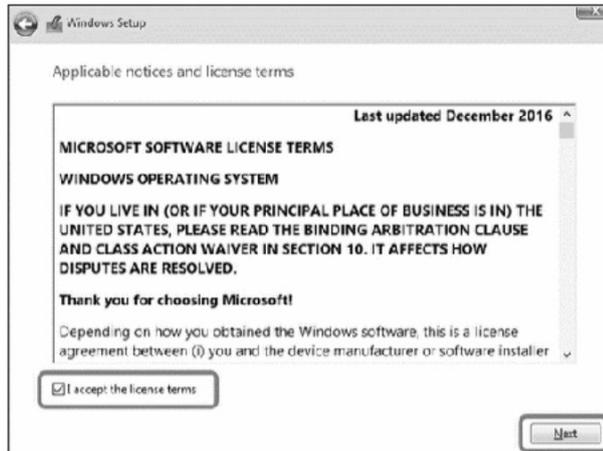
2. In the next window given in figure click on "install now". (Take the Screen shot and paste here)



3. The next window As given in figure will ask cause for the licensed product key that came with the purchase of Windows OS. (Take the Screen shot and paste here)



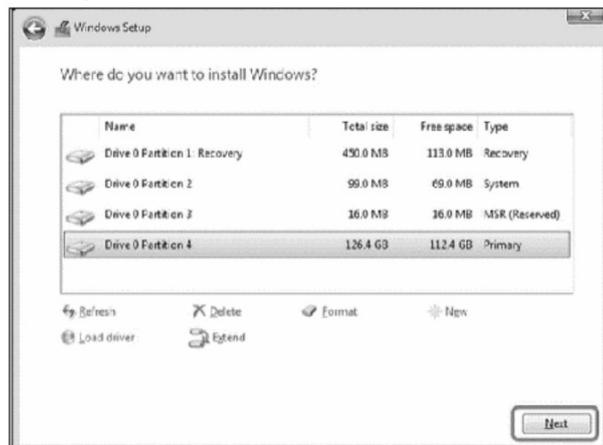
4. The next window As given in figure will so the licence terms read and accept terms by marking checkbox checked. click on "next". (Take the Screen shot and paste here)



- The next screen will ask us to choose the type of installation, select " custom: Install Windows only(advanced)" by clicking. (Take the Screen shot and paste here)



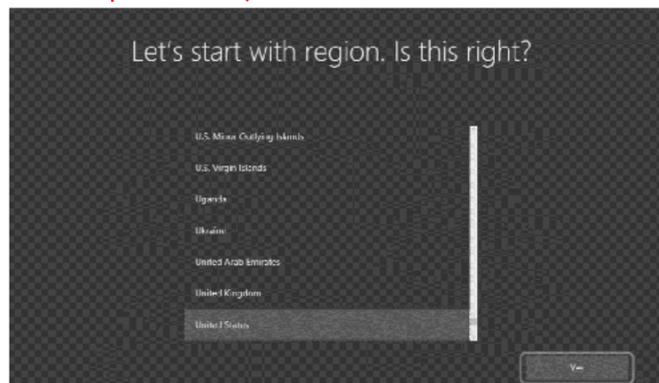
- Now select the partition where we want to install the OS. Partitions can be changed with this Window. At least 20 GB of free storage is recommended. Here, we can delete, create or format partitions. Data will be kept if we don't format or delete the partition. (Take the Screen shot and paste here)



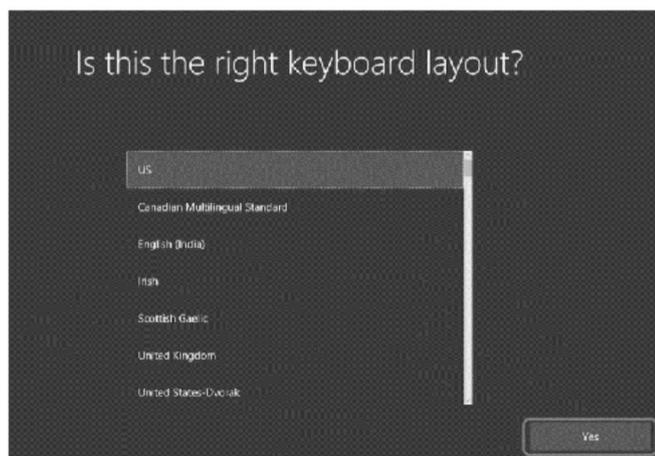
7. Now the installation of Windows proceeds automatically. PC me reboot several times during the process. **(Take the Screen shot and paste here)**



8. After completing the installation process we have to select the region and then "yes". **(Take the Screen shot and paste here)**



9. Now, we have to select our keyboard layout and then "yes". **(Take the Screen shot and paste here)**



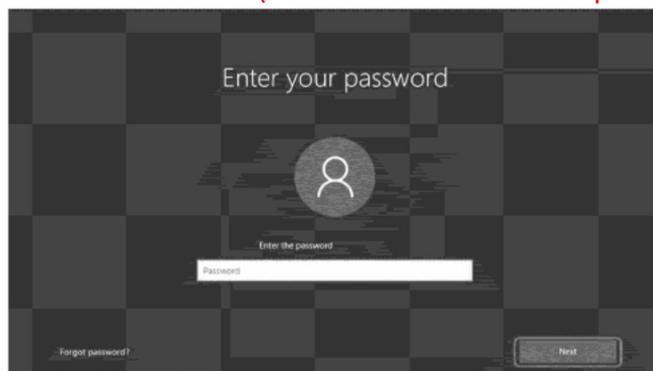
10. Now, select " setup for personal use" and then "yes". **(Take the Screen shot and paste here)**



11. Now, sign in with your Microsoft account and click "Next". If don't have an account, here you make creative new one. (Take the Screen shot and paste here)



12. Enter your password and click "Next". (Take the Screen shot and paste here)



13. Now we have to set up a pin that will be useful in login into the device, applications and services. Fastly, hit on " set a PIN" then provide PIN and then "OK"..(Take the Screen shot and paste here)



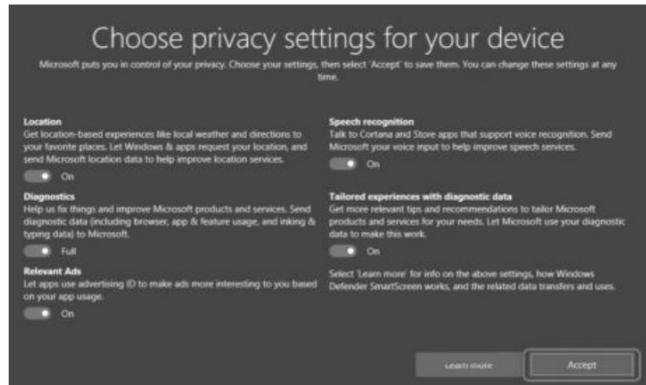
14. If we wish to save our files on one drive, we can specify it by clicking "yes". (Take the Screen shot and paste here)



15. We can use Microsoft personal assistant i.e., Cortana by clicking "yes". (Take the Screen shot and paste here)



16. Now we have to choose our privacy setting by given toggle button. Click "Accept" (Take the Screen shot and paste here)



17. Now it may take few minutes to configure and finally, will get the home screen or desktop screen of Windows OS as soon in figure. **(Take the Screen shot and paste here)**



Observation

Sl. No.	System Configuration (HDD, CPU & RAM)	OS version to be installed	New file System	New Partition Sizes	Time Taken For installation	Key Features of the OS

Conclusion:

From the above experiment I learn How to install Windows 10 Operating System in a Computer.

Assessment Scheme

The given performance indicators should serve as a guideline for assessment regarding process and product-related marks.

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks''(.....%)			
1.	Creation of Bootable Media	10	
2.	Changing Boot sequence order, defining file system and partition sizes	10	
3.	Explanation of Practical Components	10	
4.	Procedure adoption and step-by-step explanation	10	
5.	Viva voce	10	
Product Related: Marks* (.....%)			
6.	Preparation of observation tables	25	
7.	Screen shots and explanation of observation tables & conclusion made	25	
Total		100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	

Expt. No. 9

Date:

Aim of the experiment: Write a basic web page using html and body tag.

Apparatus required: Computer system with any text editor.

Theory:

- HTML program helps to design a web page which can be executed using any web browser.
- Several tags are used to write a program. An opening tag should be followed by a closing tag except some specific tags.
- A tag can have some attributes which helps to personalize the web page.
- <html> tag is the opening tag for any html web page.
- <body> tag comes after the <html> tag.
- An opening tag must have one closing tag, except few tags.

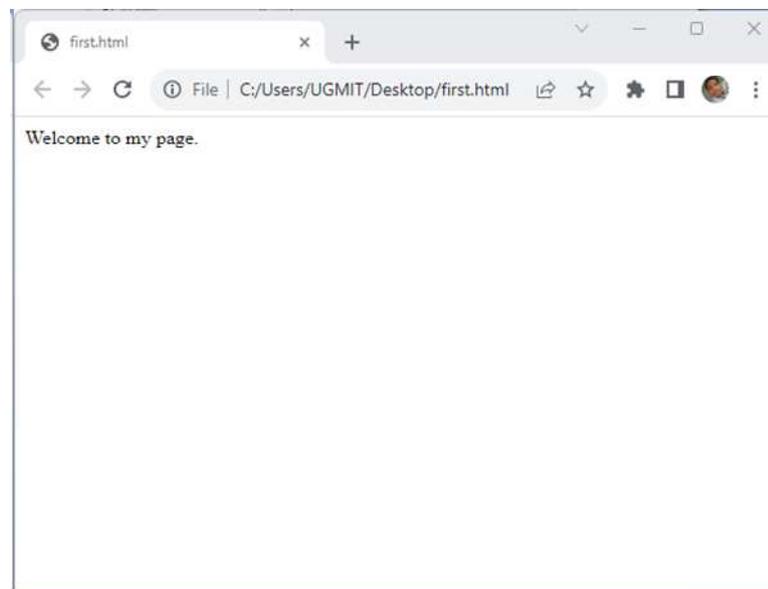
Procedure:

- Open the text editor. Here I use notepad as the text editor.
- Write the code and save the program using '.html' or '.htm' extension.
- Open the saved program using any web browser to see the output.

Program:

```
<html>
  <body>
    Welcome to my page.
  </body>
</html>
```

Output:



Conclusion: In the above experiment, I designed a basic web page using html and body tag.

Signature of the student

Assessment Scheme

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks” (.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	20	
4.	Viva voce	20	
Product Related: Marks* (.....%)			
5.	Screen shots and explanation of observation tables & conclusion made	30	
	Total	100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	

Expt. No. 10

Date:

Aim of the experiment: To use the different tags of html.

Apparatus required: Computer system with any text editor.

Theory:

Tags of HTML:

1. <html> : The starting tag of HTML. All the content of the webpage will be written inside the <html> and </html> tag.
2. <body> : The body tag holds all the content which will be visible in the webpage.
3. : bold tag
4. <i> : italic tag
5. <u> : underline tag
6. : to set the font color, font size, and font face of the text.
7. <table> : to draw a table inside the webpage.
8. <tr> : to draw a row of the table. This tag is used with <table> tag.
9. <td> : to draw a column and to fill data in the table. This is to be used inside the <tr> tag.
10. <th> : to write the heading of the table.
 - HTML program helps to design a web page which can be executed using any web browser.
 - Several tags are used to write a program. An opening tag should be followed by a closing tag except some specific tags.
 - A tag can have some attributes which helps to personalize the web page.
 - <html> tag is the opening tag for any html web page.
 - <body> tag comes after the <html> tag.
 - An opening tag must have one closing tag, except few tags.

Procedure:

- Open the text editor. Here I use notepad as the text editor.
- Write the code and save the program using '.html' or '.htm' extension.
- Open the saved program using any web browser to see the output.

Program:

Task 1: Use heading tag to create text of different size

```
<html>
  <head>
    <title> UGMIT Rayagada </title>
  </head>
  <body>
    <h1>UGMIT Rayagada</h1>
    <h2>UGMIT Rayagada</h2>
    <h3>UGMIT Rayagada</h3>
    <h4>UGMIT Rayagada</h4>
    <h5>UGMIT Rayagada</h5>
    <h6>UGMIT Rayagada</h6>
  </body>
</html>
```

Output:

UGMIT Rayagada

UGMIT Rayagada

UGMIT Rayagada

UGMIT Rayagada

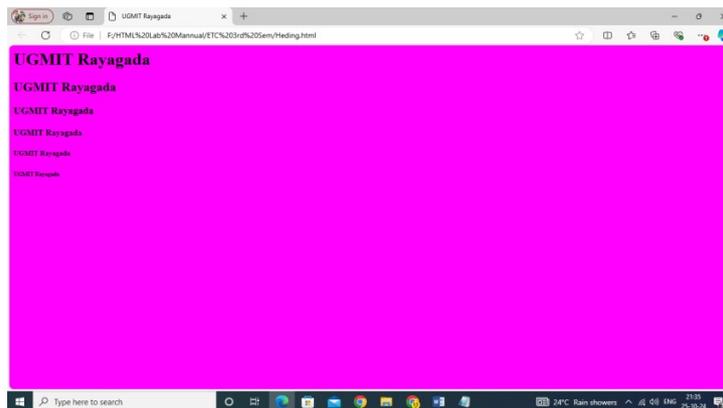
UGMIT Rayagada

UGMIT Rayagada

Task 2: Add background colour to the webpage

```
<html>
  <head>
    <title> UGMIT Rayagada </title>
  </head>
  <body bgcolor="#FF00FF">
    <h1>UGMIT Rayagada</h1>
    <h2>UGMIT Rayagada</h2>
    <h3>UGMIT Rayagada</h3>
    <h4>UGMIT Rayagada</h4>
    <h5>UGMIT Rayagada</h5>
    <h6>UGMIT Rayagada</h6>
  </body>
</html>
```

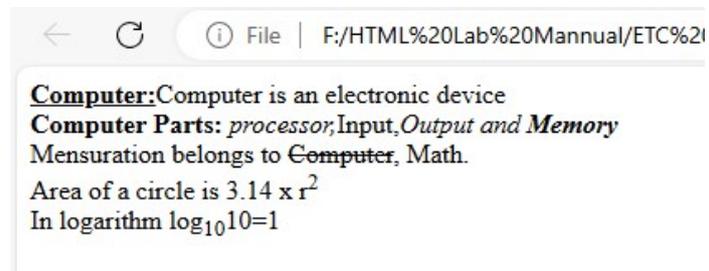
Output:



Task 3: Add tag pair to format the fonts.

```
<html>
  <head>
    <title> UGMIT Rayagada </title>
  </head>
  <body>
    <font size="12" face="arial">
      <b><u>Computer:</u></b> Computer is an electronic
      device<br>
      <b>Computer Parts:</b> <i>processor,</i>
      Input,<em>Output and </em>
      <b><i>Memory</i></b><br>
      Mensuration belongs to <s> Computer</s>, Math.<br>
      Area of a circle is 3.14 x r<sup>2</sup> <br>
      In logarithm log<sub>10</sub>10=1
    </font>
  </body>
</html>
```

Output:



Conclusion: From the above experiment, I analyzed and familiarized with HTML and different tags used in HTML to create a general web page.

Signature of the student

Assessment Scheme

Performance Indicator		Weightage	Marks Awarded
Process Related:Marks" (.....%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	20	
4.	Viva voce	20	
Product Related: Marks* (.....%)			
5.	Screen shots and explanation of observation tables & conclusion made	30	
	Total	100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student :			Signature of Teacher with Date
Mark Awarded			
Process Related	Product related	Total	