

MALAD KANDIVALI EDUCATION SOCIETY'S NAGINDAS KHANDWALA COLLEGE OF COMMERCE, ARTS & MANAGEMENT STUDIES & SHANTABEN NAGINDAS KHANDWALA COLLEGE OF SCIENCE MALAD [W], MUMBAI – 64 (AUTONOMOUS)

(Reaccredited 'A' Grade by NAAC)
(AFFILIATED TO UNIVERSITY OF MUMBAI)
(ISO 9001:2015)

CERTIFICATE

Roll No:10	Programme: BSc IT/CS Semester: II
he above student in platforms, Tools and	a bonafide record of practical works done by the college laboratory for the course IT Practices (Course Code: 2026UISTP) for the Second Semester of BSc IT/CS during the 021.
The journal work is	the original study work that has been duly
approved in the year 2	2020-2021 by the undersigned.

Name:		Roll No:
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Sr. No.	DATE	TITLE	SIGN
1.		INTRODUCTION and CONTRIBUTING TO WIKIPEDIA a) What is Wikipedia? b) Steps to Create Account on Wikipedia c) Creating Page on Wikipedia d) Edit your page	
2.		Creating account, repository on GitHub and Cloning repository in GitHub Page	
3.		BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE a) Describe Open-Source Software with Example. b) Describe Free Software with Example c) Difference between Free and Open-Source Software.	
4.		WRITING EMAIL	
5.		Using practical examples, describe green computing. List and explain the steps that you take to contribute to green computing	
6.		WRITING BLOGS	
7.		Implementing coding practices in Python using PEP8.	
8.		PRESENTATION:	_

Name: Darren Chetty

Roll no: 10 Class: FYCS

Practical1:

Introduction and Contribution to Wikipedia

a) Description about Wikipedia and its features:

Wikipedia is a free, open content online encyclopedia created through the collaborative effort of a community of users known as Wikipedians. Anyone registered on the site can create an article for publication. Jimmy Wales and Larry Sanger co-founded Wikipedia as an offshoot of an earlier encyclopedia project, Nupedia, in January 2001. Originally, Wikipedia was created to provide content for Nupedia. However, as the wiki site became established it soon grew beyond the scope of the earlier project.

Its features:

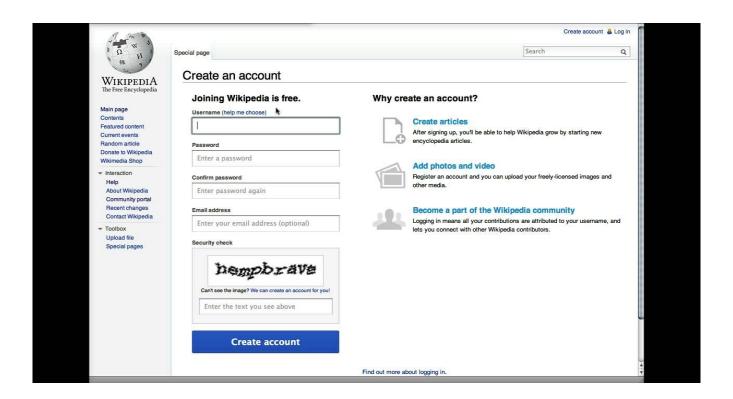
- Creating a page
- Editing a page
- Link between pages
- It is globally available on all platforms
- it can provide a large amount of information
- Users can share their own thoughts and knowledge
- It is easy to use
- Available in multiple languages

b) Creating Account on Wikipedia:

Step 1: go to https://en.wikipedia.org/wiki/Wikipedia click on create account

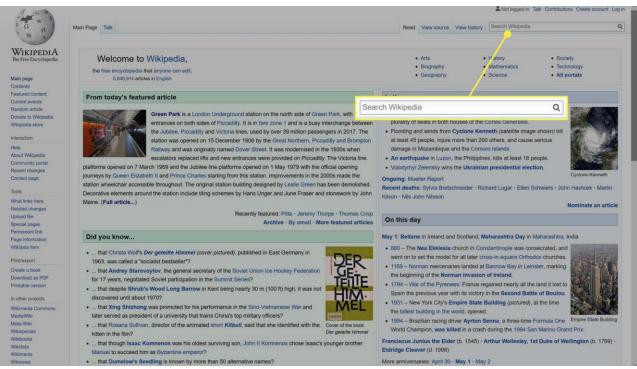


Step 2: fill in the details



c) Creating your page on Wikipedia

Step 1: After creating the account for creating your own article by searching your name



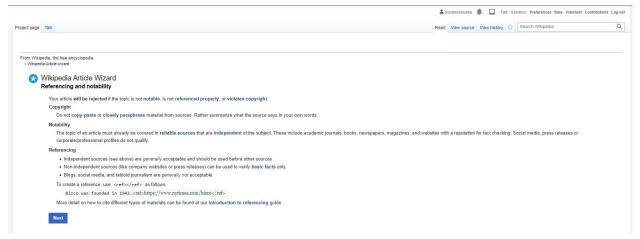
Step 2: You will be redirected to a page where it will be written "as for it to be created" click on i t



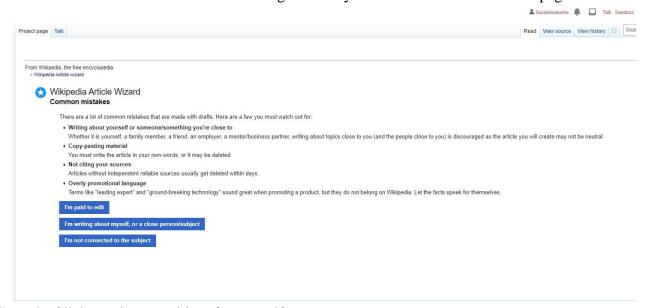
It will take to a page like this



Step 3: You can click on next to get started or practice in the sandbox for rough article writing.

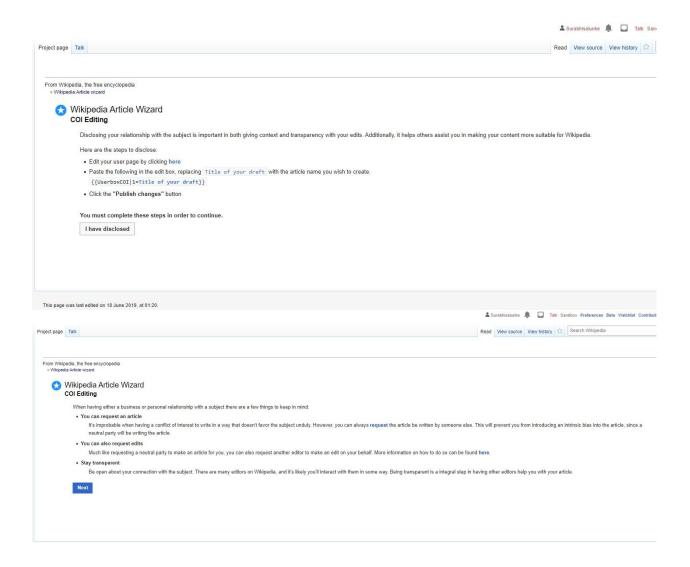


Click on next again and you will be redirected to a page like this:

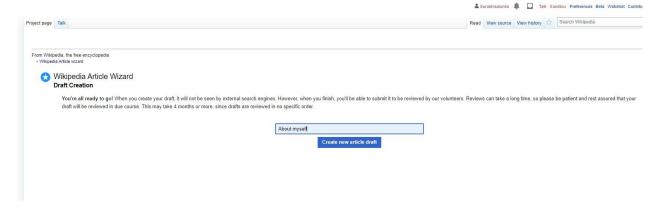


Step 4: Click on i am writing for myself

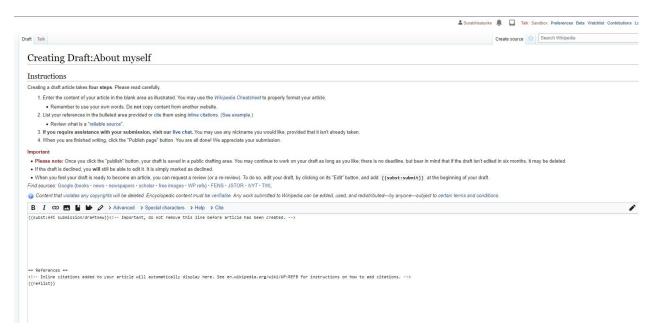
Click on i have disclosed. And then next



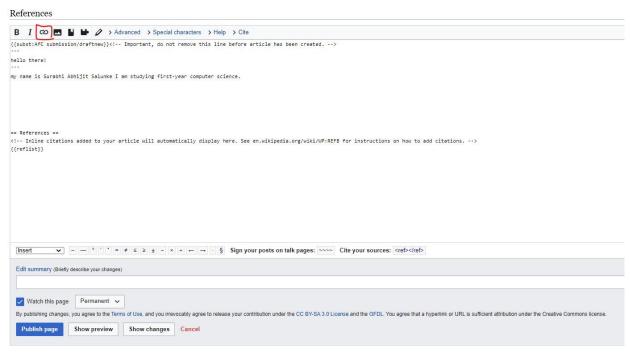
Step 5: Enter in your draft name and click on create new article draft



You will be redirected to the page where you can put your information or about the article you want to write about



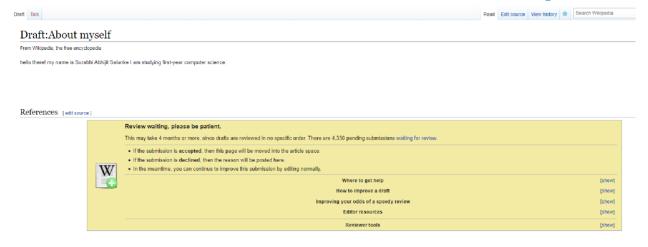
For linking your page to another site or page you can click on the highlighted button



Step 6: Click on the publish page and then submit the draft to review.



Step 7: Your article will be sent to review be patient with it



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Practical 2

Creating account, repository on Github and Cloning repository in Github

Step 1: to create an account on github go to https://github.com click on Sign Up



Join GitHub

Create your account

Jsername *
Email address *
Password *
Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase etter. Learn more.
Email preferences
Send me occasional product updates, announcements, and offers.
Verify your account
Pick the spiral galaxy

Step 3: After clicking on create account you will be directed to this page:



Please verify your email address

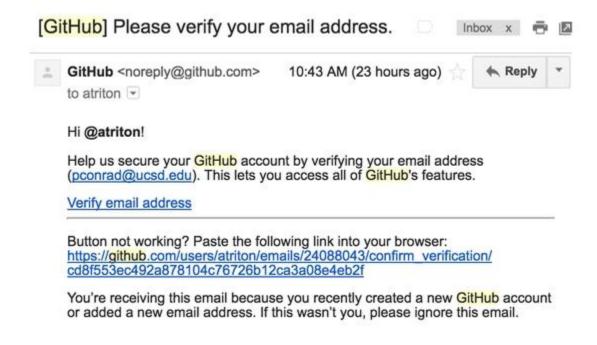
Before you can contribute on GitHub, we need you to verify your email address.

An email containing verification instructions was sent to surabhisalunke05@gmail.com.

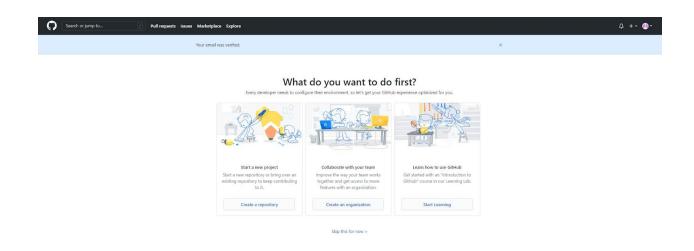
Resend verification email Change your email settings

Step 4: Check your email for a verification mail from GitHub

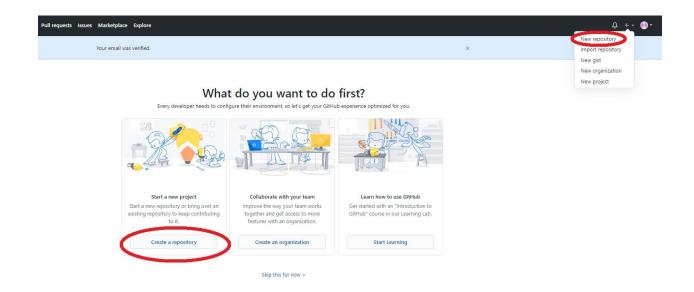
The email will look something like this:



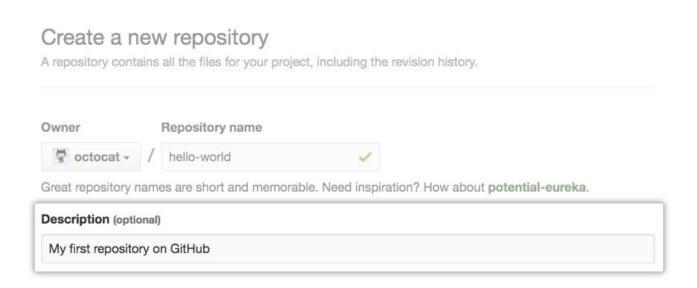
Step 5: Click on verify e mail address it will take you to this page:



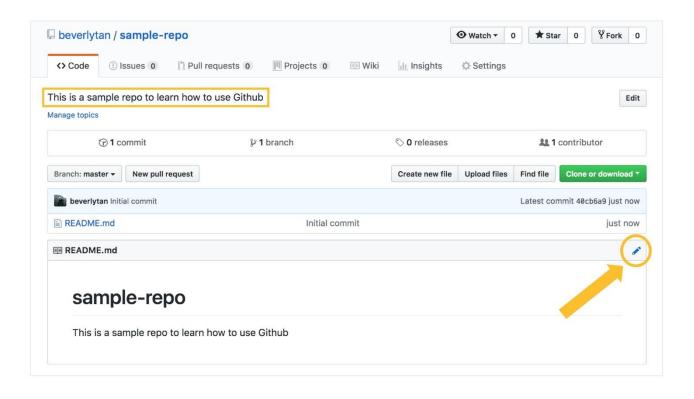
Step 6: to create a repository



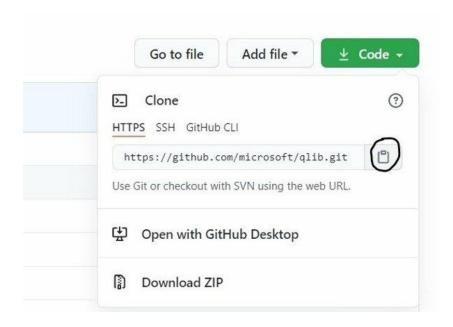
Step 7: fill in the information shown according:



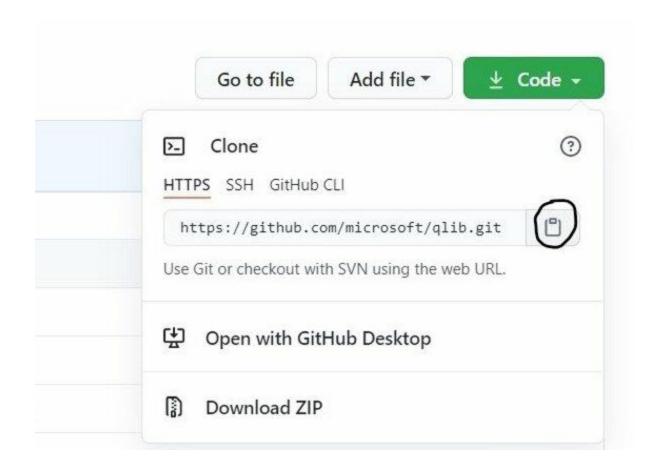
Step 8: you will see your repository on your account



Step 9: to clone the repository click on the green color code button:



Step 10: copy the url by clicking on the small clipboard icon:



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PRACTICAL 3:

BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE

a) Describe Open Source Software with Example.

Open Source Software(OSS) is a software with source code that anyone can inspect, modify, and enhance. It usually includes license for programmers to change the software in any way they choose, they can fix bugs, improve functions or adapt the software to suit their own needs. For example linux is the best example of open source, new programs can be created from its nucleus or kernel.

More examples can be:

- Mozilla Firefox
- Apache Web Server
- VLC media player
- jQuery

b) Describe Free Software with Example.

Free software is a software that can be freely used, modified, and redistributed with only one restriction: any redistributed version of the software must be distributed with the original terms of free use, modification, and distribution. The GIMP is a powerful bitmap mode digital creation program. Because of their high quality and openness, several free software programs have become leaders in their field or comprise the core of an entire industry. In spite of being relatively new, The Gimp has rapidly become serious competition for Photoshop More examples can be:

- Thunderbird
- Openoffice
- BitTorrent

c) Difference between Free and Open Source Software.

Free Software	Open Source Software
Development methodology	Social movement
Free redistribution of the software.	The freedom to run the program as you wish, for any purpose.
Freedom is a value that is more important than any economical advantage	Freedom is not an absolute concept. Freedom should be allowed, not imposed.
Examples: linux kernel, BSD and linux operating systems,the GNU compiler collection and C library.	Examples: Apache HTTP Server, the e- ecommerce platform, internet browser, full office suite LibreOffice

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ROLL NO: 10

CLASS: FYCS

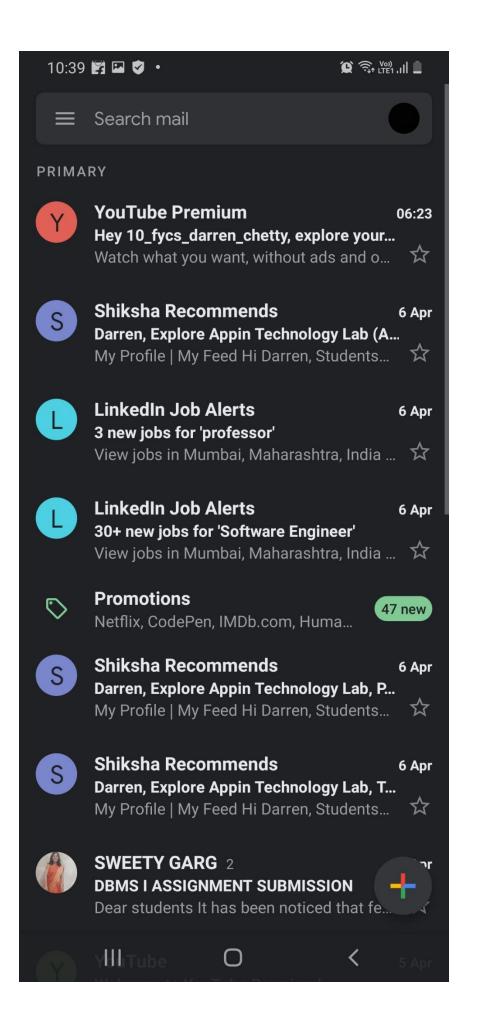
PRACTICAL 4

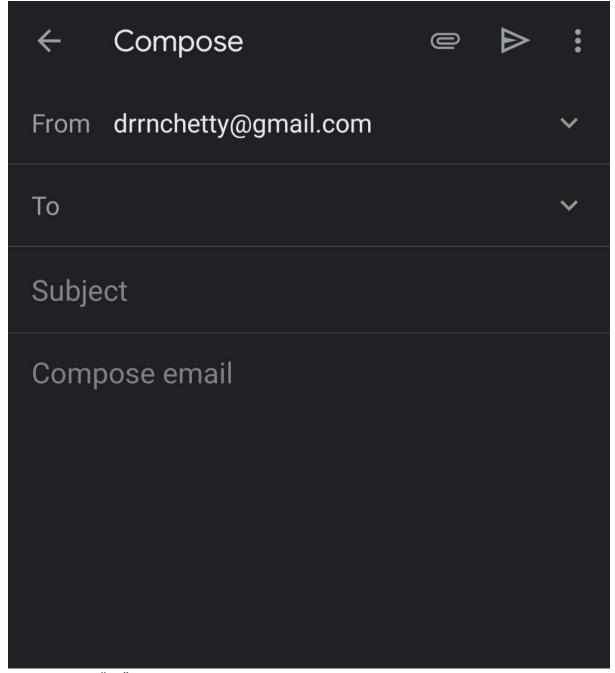
WRITING EMAIL

STEP 1: LOGIN TO YOUR GOOGLE ACCOUNT

Google
Sign in
Use your Google Account. Learn more
Femail or phone
drrnchetty@gmail.com
Forgot email?
Create account
Next
III O <

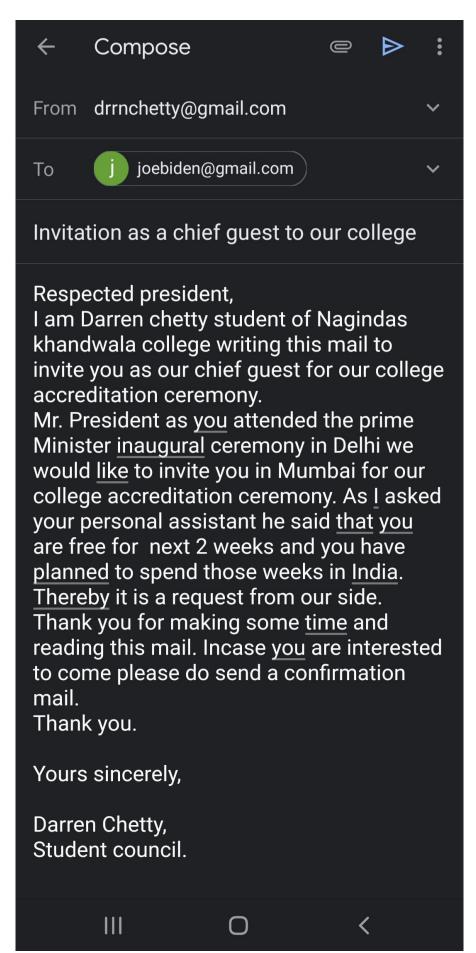
STEP 2: SEARCH EMAIL AND CLICK ON COMPOSE





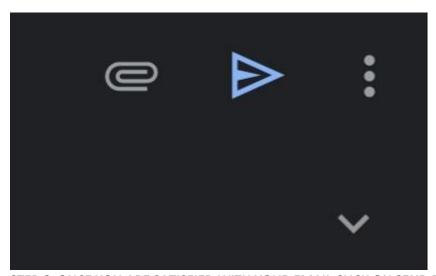
STEP 4: IN THE "TO" SECTION TYPE THE GMAIL ID OF THE NAME OR ORGANIZATION TO WHOM YOU WANT TO SEND THE MAIL AND WRITE THE SUBJECT BELOW THE "SUBJECT" SECTION.

THERE ARE 2 TYPES OF EMAIL FORMAL AND INFORMAL, MAKE SURE YOU USE THE RIGHT FORMAT



- 1. THE SUBJECT LINE WRITE THE WHAT EMAIL IS ABOUT.
- 2. START WITH AN APPROPRIATE GREETING: BE FORMAL IF THEY ARE ELDER AND INFORMAL IF THEY ARE YOUR AGE, BUT TO BE PROFESSIONAL ALWAYS USE FORMAL FORMAT.
- 3.KEEP YOUR MESSAGE SHORT AND CONCISE.
- 4.USE STANDARD FONTS.
- 5. WRITING YOUR CLOSINGS: YOURS SINCERELY, YOURS TRULY TO CLOSE YOUR EMAIL.
- 6.DO A FINAL SPELLING AND GRAMMAR CHECK.

STEP 5: USE ATTACH BUTTON IF YOU WANT TO ATTACH ANY FILE.



STEP 6: ONCE YOU ARE SATISFIED WITH YOUR EMAIL CLICK ON SEND BUTTON NEAR THE ATTACH BUTTON TO SEND THE MAIL.

Practical No 5

GREEN COMPUTING

- A. Using practical examples, describe green computing. List and explain the steps that you take to contribute to green computing.
- Green computing is environmentally responsible and eco-friendly use of computers, It
 is also defined by being the using and disposing of computing devices in a way that
 reduces their environmental contact. Some steps that we could take to contribute to
 green computing are:
- 1) Power down when not in use Seems simple but many of us leave computers powered up for a long time when not in use a A large sum of power is being wasted, so if you're not using the computer press the power button to shut it off until needed. This can be done even if the computer is working on something. Screensavers do not save power. The same goes for computers, you don't have to shut it down completely if you don't want to reboot, just use sleep or hibernation mode. This will help save energy and keep the system in its current state when you need it again.
- 2) Purchase energy-saving hardware If you don't need super-fast computing power then look out for energy-efficient components when buying a new computer, such as green hard drives and low-energy processors. While performance is slower and they can use remarkably less power. Purchasing an energy-saving power supply unit for a desktop PC can help the environment and save money, they're often quieter too.
- 3) Use the power-saving features All computers include power-saving options. Using these features you can command the computer to do various energy-saving tasks automatically, including shutting off unused hard disks, powering off a monitor after a given time, or even placing the computer into sleep mode when not in use. This is very useful on laptops to help preserve battery life.
- 4) 4)Disposal of e-waste While new computers are being made every day, old computers are being discarded-thus creating a lot of e-waste. When we throw away our old computers to buy new ones, we are just adding to the e-waste. You can't burn e-waste because it will release harmful gases. Try to sell your old products after buying new so that most e-waste can be avoided.
- 5) Use a laptop instead of desktop Laptops are much better for the environment than desktop computers as they have components that require less power. If you don't need a desktop computer to consider buying a laptop instead, or if you have both, use the laptop as much as possible before considering the desktop.
- 6) Recycle responsibly Computer hardware is filled with different materials which can be hazardous to the environment so make sure you dispose of old components effectively. Don't just throw broken technology in the bin, take the time to trace local recycling organizations. There should be companies that can remove the metals which may fix or furnish items. You should check with your local authorities to find out what facilities they offer for safe disposal of old computing parts.

Practical No 7

Implementing coding practices in python using PEP8

PEP8 is a style guide for python code. PEP stands for Python Enhancement Proposal, and they describe and document the way python language evolves. It is a document that describes new features proposed for python and document aspects of python, like design and style. It promotes a very readable and eye-pleasing coding style.

Somethings to keep in mind are:

Use 4-space indentation and no tabs.

Example:

```
it tools.py
      # Aligned with opening delimiter.
 2
      grow = function_name(variable_one, variable_two,
      variable_three, variable_four)
 3
      # First line contains no argument. Second line onwards
 4
      # more indentation included to distinguish this from
 5
 6
      # the rest.
      def function_name (
          variable_one , variable_two , variable_three ,
 8
          variable four ):
 9
10
          print (variable_one)
11
```

Use docstrings: there are both single and multi-line docstrings that can be used in python. However, the single line comment fits in one line, triple quotes are used in both cases. These are used to define a particular program or define a particular function.

Example:

```
"""This is single line docstring"""
"""This is
a
multiline comment"""
```

Wrap lines so that they don't exceed 79 characters: The Python standard library is
conservative and requires limiting lines to 79 characters. The lines can be wrapped
using parenthesis, brackets, and braces. They should be used in preference to
backslashes.

Example:

```
with open ( '/path/from/where/you/want/to/read/file' ) as file_one, \
  open ( '/path/where/you/want/the/file/to/be/written' , 'w' ) as file_two:
  file_two.write(file_one.read())
```

4. While naming the function of methods always use self for the first argument. If the function argument name matches with reserved words then it can be written with a trailing comma.

Example:

```
# Python program to find the
# factorial of a number provided by the user.
# change the value for a different result
num = 7
# uncomment to take input from the user
#num = int(input("Enter a number: "))
factorial = 1
# check if the number is negative, positive or zero
if num < 0:
 print ( "Sorry, factorial does not exist for negative numbers" )
elif num == 0 :
 print ( "The factorial of \theta is 1" )
else :
 for i in range ( 1 , num + 1 ):
 factorial = factorial * i
print ( "The factorial of" ,num, "is" ,factorial)
```

```
PS D:\Users\Documents\FYCS SEM 2\IT Tools> python -u "d:\Users\Documents\FYCS SEM 2\IT Tools\it tools.py"
Enter a number: 10
The factorial of 10 is 3628800
PS D:\Users\Documents\FYCS SEM 2\IT Tools>
```

WHAT IS OPEN SOURCE SOFTWARE???



 Open-source software is a type of computer software in which source code is released under a license in which the copyright holder grants users the rights to use, study, change, and distribute the software to anyone and for any purpose. Open-source software may be developed in a collaborative public manner.

Developer: Zmanda, Danese Cooper





WHAT IS THE HISTORY OF OSS???



 The Open Source Definition was originally derived from the Debian Free Software Guidelines (DFSG). Bruce Perens had composed the original draft of the DFSG, and it was edited, refined, and approved as formal policy by the Debian developer community in 1997.

WHAT IS OPEN SOURCE INITIATIVE???

 The Open Source Initiative (OSI) is a California public benefit corporation, with 501(c)3 taxexempt status, founded in 1998. It promotes the usage of Open Source Software. The organization was founded in late February 1998 by Bruce Perens and Eric S.

FOUNDER OF OSI

• ERIC. S. RAYMOND



BRUCE PERENS



HOW DOES OSS WORK??



 Open-source software (OSS) is any computer **software** that's distributed with its **source** code available for modification. That means it usually includes a license for programmers to change the **software** in any way they choose: They can fix bugs, improve functions, or adapt the **software** to suit their own needs.

EXAMPLES OF OSS...

- LINUX
- APACHE
- PERL, PYTHON, PHP, ETC. AND LANGUAGES
- MySQL
- MOZILLA FIREFOX
- ECLIPSE
- •

IS OSS BUG FREE???

 The open source bug tracking tools are the stress-free way to gain knowledge of the software and to put up a new workflow within the process. Even they are free to use your team track issues at no cost by employing free bug tracking tool.