



**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

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This is certified to be a bonafide record of practical works done by the above student in the college laboratory for the course **IT platforms, Tools and Practices** (Course Code: **2026UISTP**) for the partial fulfillment of Second Semester of BSc IT/CS during the academic year 2020-2021.

The journal work is the original study work that has been duly approved in the year 2020-2021 by the undersigned.

External Examiner

**Subject-In-Charge
(Ms.Sweety Garg)**

Date of Examination: (College Stamp)

Sr. No.	DATE	TITLE	SIGN
1.	02/02/2021	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.	09/02/2021	Creating account, repository on GitHub and Cloning repository in GitHub Page	
3.	16/02/2021	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.	23/02/2021	WRITING EMAIL	
5.	25/02/2021	Using practical examples, describe green computing. List and explain the steps that you take to contribute to green computing	
6.	02/03/2021	WRITING BLOGS	
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Practical1: Introduction and Contribution to Wikipedia

a) Description about Wikipedia and its features

Description about Wikipedia

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; registration is not required to edit articles. The site's name comes from wiki, a server program that enables anyone to edit Web site content through their Web browser.

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. As of January 2015, the website provided well over five million articles in English and more than that number in all other languages combined. At that same time, Alexa ranked Wikipedia as the seventh-most popular site on the Internet. Wikipedia was the only non-commercial site of the top ten. Criticisms of Wikipedia include assertions that its openness makes it unreliable and unauthoritative. Because articles don't include bylines, authors aren't publicly accountable for what they write. Similarly, because anyone can edit any article, the site's entries are vulnerable to

unscrupulous edits. In August 2007, Virgil Griffiths created a site, WikiScanner, where users could track the sources of edits to Wikipedia entries. Griffiths reported that self-serving edits typically involved whitewashing or removal of criticism of a person or organization or, conversely, insertion of negative comments into the entry about a competitor. Wikipedia depends upon the vigilance of editors to find and reverse such changes to content.

Features of Wikipedia

Basic features of a Wiki

You may not have realized, but you've probably already used a Wiki. The most famous example most people have engaged with is Wikipedia, the free internet encyclopedia that anyone can edit. While your company Wiki may not end up containing quite as many answers, the concept and functionality is the same.

Wikis can have a variety of uses and applications, but they usually share a few key functionalities. We'll walk you through each of these features using the Wiki in Backlog.

- Link between pages
- Full page search.
- Hierarchical page display.
- A list of the most recently edited pages.
- Searching with tags.

b) Creating Account on Wikipedia

Go to www.wikipedia.org and choose "English"



Click "Create account" on the upper right side of your browser

free encyclopedia

wiki/Main_Page

Reader

book Twitter Wikipedia Yahoo! News Popular +

Create account Log in

View source View history Search

kipedia, anyone can edit.

English

- Arts
- History
- Society
- Biography
- Mathematics
- Technology
- Geography
- Science
- All portals

article

Winter Olympics in Oslo, Norway, 25 February. Allies for the games ended in Oslo's main area with the

In the news

- In American football, the Seattle Seahawks defeat the Denver Broncos to win Super Bowl XLVIII.
- Academy Award-winning actor Philip Seymour



Enter your account information and the captcha, and click "Create Account"

Create account – Wikipedia, the free encyclopedia

Blackboard Learn staples Apple iCloud Facebook Twitter Wikipedia Yahoo! >

Special page Search

WIKIPEDIA The Free Encyclopedia

Main page Contents Featured content Current events Random article Donate to Wikipedia Wikimedia Shop

Interaction Help About Wikipedia Community portal Recent changes Contact page

Tools Upload file Special pages Printable version

Create account Log in

Create account

Enter your information below.

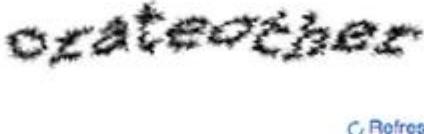
Username (help me choose) 1

Password 2

Confirm password 3

Email address (optional) 4

Security check



Enter the text you see above 5

Can't see the image? Request an account

Create your account 6

Wikipedia is made by people like you.



Log in to your email and confirm your registration by clicking the link in the email

MediaWiki Mail

January 15, 2014 12:44 PM

To: Castechtraining

Wikipedia email address confirmation

Inbox - Exchange

Hello Castechtraining,

Welcome to Wikipedia! You've joined the English-language version of the free encyclopedia that anyone can edit.

To confirm your email address, please open this URL in your browser

<http://en.wikipedia.org/wiki/Special:ConfirmEmail/550ba3a47df074a4b5711ab7397dfd34>



This link expires at 17:43, 22 January 2014 (UTC).

Confirming your email address will allow you to:

- * reset your password via email
- * exchange emails with other Wikipedia editors
- * receive notifications about activity on Wikipedia relevant to you, such as when someone leaves you a message

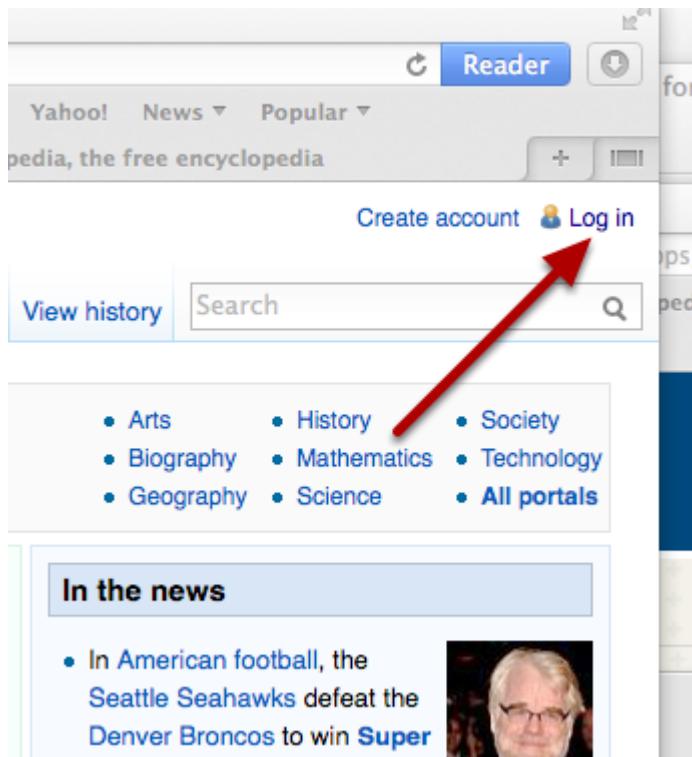
If you wish to be able to recover your account but don't want to receive other email, visit your preferences at: <http://en.wikipedia.org/wiki/Special:Preferences>

Thanks, and once again, welcome!

This email is generated automatically, and does not accept replies. If you didn't register an account on Wikipedia, feel free to disregard this message or click this link:

<http://en.wikipedia.org/wiki/Special:InvalidateEmail/550ba3a47df074a4b5711ab7397dfd34>

To log in in the future, return to the main page and click "Log in" in the upper right corner of your browser

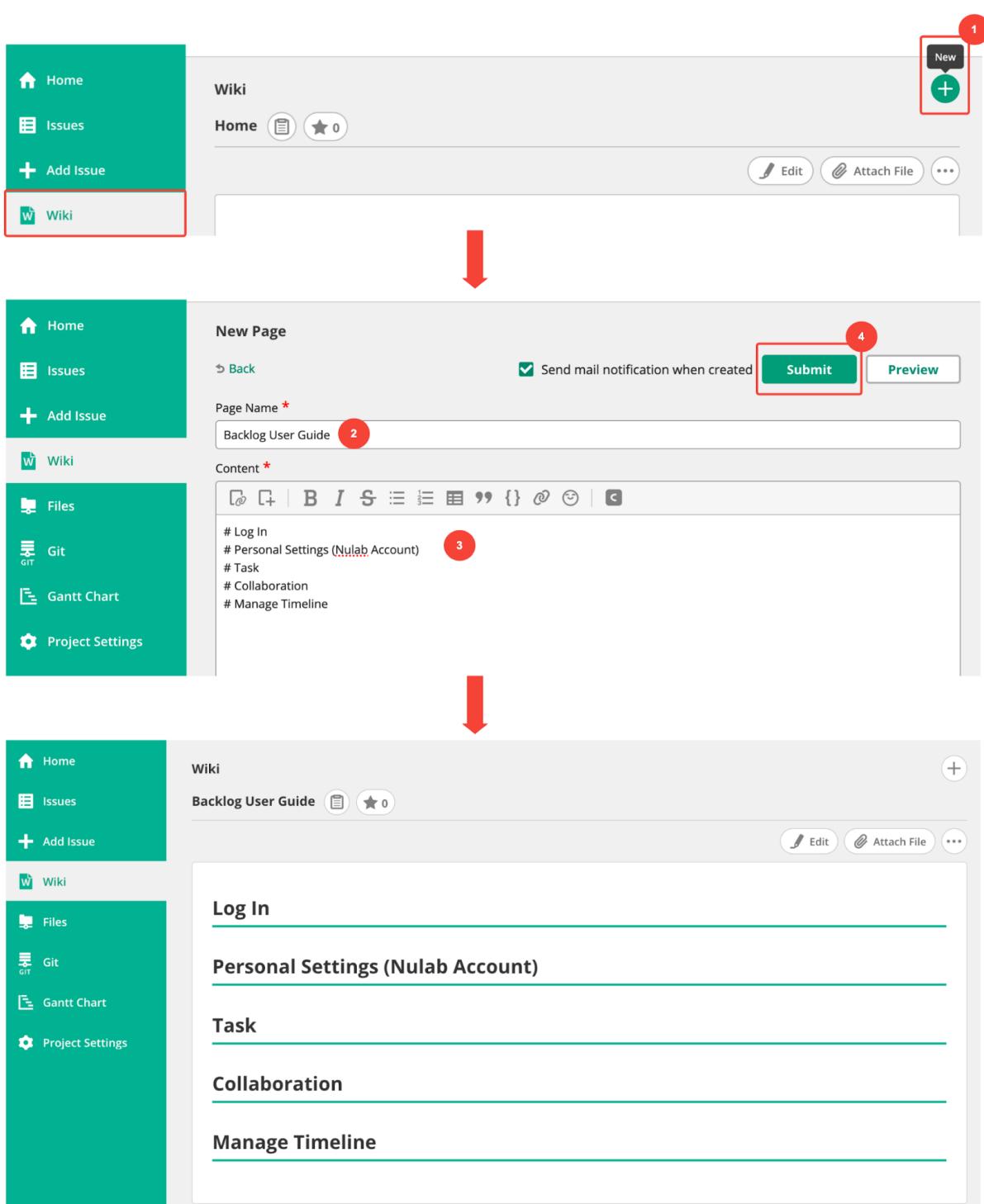


c) Creating your page on Wikipedia

Create a page

To contribute to a Wiki, you'll start by creating a page. All pages have a title and text. Unlike pages of a normal website, you won't need to know any code to contribute content here. You can write and format text on a Wiki page like you would an email.

When you're done, all you have to do is click "Submit" to save the page and it can immediately be read by anyone.



d) Editing your page on Wikipedia

[Edit a page](#)

Published pages can be edited by anyone that reads them. If, for example, you notice that a page created by someone else contains inaccurate/outdated information, you can open the editing screen and correct that information directly. Just “Submit”, and the page's contents will update immediately.

The diagram illustrates the workflow for editing a published page:

- Panel 1:** Shows the published page "Backlog User Guide" on the Wiki screen. The "Edit" button is highlighted with a red box and a red arrow pointing down to it.
- Panel 2:** Shows the "Editing Page - Backlog User Guide" dialog. The "Submit" button is highlighted with a red box and a red arrow pointing down to it.
- Panel 3:** Shows the updated published page "Backlog User Guide" on the Wiki screen. The content has been updated to reflect the changes made in the dialog.

Panel 1: Published Page

Wiki
Backlog User Guide

Panel 2: Editing Page Dialog

Editing Page - Backlog User Guide

- Page Name *
- Content *

Panel 3: Updated Published Page

Wiki
Backlog User Guide

Practical 2: creating account, repository on Github and Cloning repository in Github

a) Creating Account

The GitHub homepage features a large banner at the top with a dark blue background. On the left, there's a search bar with the placeholder "Search GitHub" and a magnifying glass icon. To its right are "Sign in" and "Sign up" buttons. The main title "Where the world builds software" is displayed in large white font. Below it, a subtitle reads: "Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world." A "Sign up for GitHub" button is located below the subtitle. The background of the banner shows a stylized globe with glowing purple lines representing network connections.



Sign in to GitHub

Username or email address

Dharapatel77

Password

[Forgot password?](#)

.....

[Sign in](#)

New to GitHub? [Create an account.](#)

[Terms](#) [Privacy](#) [Security](#) [Contact GitHub](#)

b) Creating Repository

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?
[Import a repository.](#)

Owner *



Repository name *

Dharapatel



Great repository names are short and memorable. Need inspiration? How about [shiny-fortnight](#)?

Description (optional)

some text

Public

Anyone on the internet can see this repository. You choose who can commit.

Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

 **Public**
Anyone on the internet can see this repository. You choose who can commit.

 **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

Add a README file
This is where you can write a long description for your project. [Learn more](#).

Add .gitignore
Choose which files not to track from a list of templates. [Learn more](#).

Choose a license
A license tells others what they can and can't do with your code. [Learn more](#).

This will set  **main** as the default branch. Change the default name in your [settings](#).

Create repository

 **Dharapatel // / Dharapatel** Unwatch 1 Star 0 Fork 0

[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

 **main**  1 branch  0 tags [Go to file](#) [Add file](#) [Code](#)

 **Dharapatel77** Initial commit 0bb2fb8 6 minutes ago 1 commit

README.md	Initial commit	6 minutes ago
---------------------------	----------------	---------------

README.md 

Dharapatel

some text

About 
some text

Readme 

Releases
No releases published [Create a new release](#)

Packages
No packages published [Publish your first package](#)

NAME-PATEL DHARA JANAKBHAI

ROLL NO-141

SUBJECT-IT TOOLS

PRACTICAL 3: BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE

PRACTICAL 3: BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE

a) Describe Open-Source Software with Example.

Open-source software (OSS) 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. Open-source software is a prominent example of open collaboration.

- Firefox—a Web browser that competes with Internet Explorer
- OpenOffice—a competitor to Microsoft Office
- Alfresco—collaboration software that competes with Microsoft SharePoint and EMC's Documentum
- Zimbra—open-source e-mail software that competes with Outlook server
- MySQL, Ingres, and Enterprise DB—open-source database software packages that each go head-to-

head with commercial products from Oracle, Microsoft, Sybase, and IBM

- Asterix—an open-source implementation for running a PBX corporate telephony system that competes with offerings from Nortel and Cisco, among others
- Free BSD and Sun's Open Solaris—open-source versions of the Unix operating system

b) **Describe Free Software with Example.**

"Free software" means software that respects users' freedom and community. Roughly, it means that the users have the freedom to run, copy, distribute, study, change and improve the software. Thus, "free software" is a matter of liberty, not price.

- The Linux kernel, of course! The Linux kernel is protected by the GPL, and is used daily by millions of people throughout the world. As the kernel, it is one of the most important components of the GNU system ;
- Apache, the most widely used web server in the world. More than 56% of the web servers on this planet use Apache; far more than its fierce competitors, Microsoft and Netscape ;
- The Gimp is a powerful bitmap mode digital creation program. In spite of being relatively new, The Gimp has rapidly become serious competition for Photoshop ;

- PostgreSQL is an object-relational database. It is currently the most sophisticated free software database available.

c) Difference between Free and Open-Source Software.

Open-source license criteria focus on the availability of the source code and the ability to modify and share it, while free software and public domain focus on the user's freedom to use the program, to modify it, and to share it. Freeware (examples are Skype and Adobe Acrobat), in its term, is mostly aiming commercial goals and potential monetization often used as a "freemium" product.

	 Free software	 Open-source software
Definition	"FREE" is a matter of liberty, not price	"OPEN" doesn't just mean access to the source code
Ground philosophy	Social movement	Development methodology
Ground rules	Four Freedoms https://www.gnu.org/philosophy/free-sw.html	Open Software initiative https://opensource.org/osd
Free of charge	Not necessary	Not necessary
Covered by copyright law	✓ YES	✓ YES
Examples	   	

PRACTICAL-4

NAME-PATEL DHARA JANAKBHAI

ROLL NO-141

WRITING EMAIL

Email Writing

Email stands for electronic mail. It is the easiest and the cheapest way of [communication](#). It is used in formal, semi-formal as well as an informal way of expression or writing.

Browse more Topics under Writing Formal Mails

- [Definition, Effective Mails](#)
- [Essential Elements of Mails](#)

Categories of Email Writing

Emails are of three types

- Semi-Formal email
- Formal email
- Informal email

Email Writing Format

The email writing format is the same for each of the categories. Though the choice of words and language differ depending upon the type of email. One can use friendly and casual language in [informal emails](#). The language used in formal emails should be professional, clear, and formal. The email writing format is

From: Sender's email id
To: Recipient's email id
Cc: Other individuals receiving the same mail with visible ids
Bcc: Other individuals receiving the same mail with invisible ids
Subject: Title or the reason of writing mail
Salutation: Words like Dear, Respected, Hi etc.
Main body: the main content of the email
1. Introduction
2. Matter in detail
3. Conclusion
Closing: Ending Statement
Attachments: Attached Files with emails
Signature Line: Sender's name, signature, and other details of contact

Let us discuss each type of email writing format.

A Sample of Informal Email Writing Format

An email written for any friends, family members or relatives comes under this category. Use of polite, friendly and casual words along with proper greetings and closings are some of the rules of the informal emails.

Sample

Suppose you have to write an email to your friend inviting him or her to your birthday party.

To: XYZ

CC/BCC:

Subject: Invitation to a birthday party

Hi XYZ!

Hope this mail finds you in the best of your time. I am very happy to invite you to my birthday party on Nov 03 at ABC Hotel from 7:00 pm to 10:00 pm. The theme of the birthday party is ‘Pirate of the Caribbean’.

It would be great if you come and join us at the party. We will have a great time and fun together.

See You Soon

LMN

A Sample of Semi-formal Email Writing Format

An email written for any teammates or colleague is the semi-formal email. One can use friendly language but have to maintain the limit and the decency. The length, proper greetings and closing and clarity are some of the rules of the semi-formal emails.

Sample

Writing a letter to inform your classmates regarding intra-college quiz competition.

To: XYZ

CC/BCC:

Subject: Intra-college Quiz Competition.

Hello Everyone!

This is to inform you guys that an intra-college quiz competition is going to be held in our college on Nov 25 from 11:30 am in Hall – 01.

Everyone is therefore asked to take part in the competition so that our department can win.

For further queries, feel free to contact me.

Thanks

LMN

(Class Representative)

A Sample of Formal Email Writing Format

An email written for business communication or professional use comes under this category. The email written for any government department, school authority, company or any officers are the formal emails. Use of polite and formal words, the reason for writing mail, clarity, proper greeting and closing are some of the rules of the formal email.

Sample

A mail for resignation.

To: XYZ

CC/BCC:

Subject: Resignation Letter

Dear Sir,

Please accept this mail as a notice that I am leaving my position with this organization. As per the norm of the company I've to give a

month notice before resigning. I hope you will get a good replacement for me within this time period.

I really appreciate the opportunities that I have been given to me to help me grow. Wish you and the company the best in the future.

Please let me know what to expect as far as my final work schedule and the employee benefits. Please let me know in case of any assistance for the above.

Kindly look into the matter.

Thanks and Regards

LMN

(Project Head)

5).Using practical examples, describe green computing. List and explain the steps that you take to contribute to green computing

Green computing sometimes also called Green Technology. In the green computing we use computer and its related other resources such as monitor, printer, hard disk, floppy disk, networking in very efficiently manner which has less impact on the environment. Green computing is about eco-friendly use of computer. Green computing is important for all type of system. It is important for handheld system to large scale data centre.

Many IT companies have been start the use of green computing to reduce the environment impact of their IT operations . Green computing is the emerging practice of using computing and information technology resources more efficiently while maintaining or improving overall performance. The concept identifies the barriers and benefits of green computing.

Green computing is an environment friendly approach to manage information and communication technology. In active organization to increasing energy efficiently, improving information management. Designing objects and services that are beneficial for the environment.

- 1) Green computing technique reduces the energy consumption which results into low carbon dioxide emission.
 - 2) By using green computing techniques we can also save money that was spent in extra usage of energy and resources.
 - 3) Green computing also applies changing government policy to encourage recycling.
 - 4) Green computing also removes the risk which is existing in the laptop such as chemical known to cause cancer or nerve damage etc.
 - 5) Use preserve resources which use less energy to produce use and dispose of product.
- 1.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.

- 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 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. 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 to its current state when you need it again.
- 2) 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.
- 3) 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 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.
- 4) Use a laptop instead of desktop Laptops are much better for the environment than desktop computers as they have components which require less power. If you don't need a desktop computer consider buying a laptop instead, or if you have both use the laptop as much as possible before considering the desktop.
- 5) Recycle responsibly Computer hardware is filled with different material 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 which 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.

6). Writing blog

← Online Education

ONLINE EDUCATION

- March 24, 2021

Education has been evolved in this pandemic, classroom to be converted in "online-class", chalk-duster to mouse pointer-Delete key, blackboard to gadgets. In actuals this term "online education" is not newly offered, in corporate premises and various part-time courses or online training platforms have been using the same before as well. But have you ever imaged this will be introduced for primary standards up to regular graduate levels...? Let's illustrate the children murmuring "A,B,C,D... or 1,2,3,4..." With their smart gadgets along with their teacher at home in free dress at their convenient place, with no classroom punishment fear on their face. This evolution is not only prevalent but is growing rapidly, not only education lobby but both student and teachers likely involved.



Let's have a look into pros

The online method of study has several advantages. It is very convenient as both me and my teacher can interact from the convenience of your respective homes. The online study method becomes more important in case of a natural calamity of emergency. The perfect example in this regard is the recent COVID 19 pandemic that the world is still recovering from. To date, schools and colleges are running online classes, for the safety of students. Online study is indeed a safer alternative to school education.

Every aspect have their advantages and disadvantages. and yes Online education also has a disadvantages. Let's have a look on it..



It lacks the filled with enthusiasm kind of environment presented by a classroom. the lively and joyful ambience of a classroom is usually lacking in an online session. Teachers and students interact with each other only on subject matters on one by one basis. Moreover, overexposure to gadgets presents its own health hazards like headache ,weak eyesight and lack of concentration,, etc. And it's also not possible that every student have sufficient gadget for Online education.

Despite the disadvantages, the online study method proved to be beneficial in certain specific conditions. When it is not advisable to leave our home, or it isn't convenient for us, then in that case

ONLINE EDUCATION SYSTEM BECOMES BONANZA FOR STUDENTS

7)Implementing coding practices in Python using PEP8.

Input:

```
num = 9

# 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 0 is 1")
else:
    for i in range(1,num + 1):
        factorial = factorial*i

print("The factorial of",num,"is",factorial)
```

Output:

```
===== RESTART: C:/Users/dhara/OneDrive/Documents/dharapatel_141.py =====
The factorial of 9 is 362880
>>> |
```

PEP 8 : Coding Style guide in Python

Indeed coding and applying logic is the foundation of any programming language but there's also another factor that every coder must keep in mind while coding and that is the coding style. Keeping this in mind, Python maintains a strict way of order and format of scripting .Following this sometimes mandatory and is a great help on the user's end, to understand. Making it easy for others to read code is always a good idea, and adopting a nice coding style helps tremendously for that.

For Python, **PEP 8** has emerged as the style guide that most projects adhere to; it promotes a very readable and eye-pleasing coding style. Every Python developer should read it at some point; here are the most important points extracted for you:

1. Use 4-space indentation and no tabs.

Examples:

The 4-space rule is not always mandatory and can be overruled for continuation line.

```
# Aligned with opening delimiter.  
grow = function_name(variable_one, variable_two,  
                      variable_three, variable_four)
```

```
# First line contains no argument. Second line onwards  
# more indentation included to distinguish this from  
# the rest.  
def function_name(  
    variable_one, variable_two, variable_three,  
    variable_four):  
    print(variable_one)
```

2. 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:

3. 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:

4. Use of regular and updated comments are valuable to both the coders and users : There are also various types and conditions that if followed can be of great help from programs and users point of view. Comments should form complete sentences. If a comment is a full sentence, its first word should be capitalized, unless it is an identifier that begins with a lower case letter. In short comments, the period at the end can be omitted. In block comments, there are more than one paragraphs and each sentence must end with a period. Block comments and inline comments can be written followed by a single '#'. Example of inline comments:

5. Use of trailing commas : This is not mandatory except while making a tuple.

Use Python's default UTF-8 or ASCII encodings and not any fancy encodings, if it is meant for international environment.

6. Use spaces around operators and after commas, but not directly inside bracketing constructs

7. Naming Conventions : There are few naming conventions that should be followed in order to make the program less complex and more readable. At the same time, the naming conventions in Python is a bit of mess, but here are few conventions that can be followed easily.

There is an overriding principle that follows that the names that are visible to the user as public parts of API should follow conventions that reflect usage rather than implementation.

Here are few other naming conventions:

.

8. Characters that should not be used for identifiers : ‘l’ (lowercase letter el), ‘O’ (uppercase letter oh), or ‘I’ (uppercase letter eye) as single character variable names as these are similar to the numerals one and zero.

9. Don’t use non-ASCII characters in identifiers if there is only the slightest chance people speaking a different language will read or maintain the code.

10. Name your classes and functions consistently : The convention is to use **CamelCase** for classes and **lower_case_with_underscores** for functions and methods. Always use **self** as the name for the first method argument.

11. While naming of function of methods always use *self* for the first argument to instance methods and *cls* for the first argument to class methods. If a functions argument name matches with reserved words then it can be written with a trailing comma. For e.g., `class_`

You can refer to this simple program to know how to write an understandable code:

CARBON FOOTPRINTING IN GREEN COMPUTING



GROUP NO - 9



GROUP MEMBERS

SAMI VORA (100)

DHARABEN PATEL (141)

GUNJA SINGH (88)

BHAVESH KUMHAR (126)

MANAV SHETTY (84)

RUPAL PATEL (59)

DAKSH RAI (123)

NIYATI SHAH (77)

HISTORY

- *Started in 90's*
- *Energy star program*
- *Basic use*
- *Goal*



INTRODUCTION

GREEN COMPUTING

- *Environmentally responsible*
- *Disposal of electronic waste (e-waste)*
- *Reducing environmental hazardous material*
- *sustainable resources*
- *Green computing technology*
- *stages in the lifecycle*



CARBON FOOTPRINTING

- *Greenhouse Gases (GHG)*
- *Global Warming*
- *world's carbon dioxide emission percentage*
- *important measure*
- *Human Activities*



TYPES OF GREEN COMPUTING

- *Solar Power System*
- *Wind Turbine Program*
- *Geothermal Power*



GOALS OF GREEN COMPUTING

- *To minimize the implementation of hazardous products.*
- *More production of energy efficiency.*
- *To use the recyclability of wasted product and factory wasted products.*
- *To design proper algorithms for improve the computer's efficiency*



NEED OF GREEN COMPUTING

- 1)Save energy*
- 2)Save environment*
- 3)Recycle of waste product*
- 4) Save Money*
- 5)Energy consumption*



APPROACHES TO GREEN COMPUTING

- *Terminal Servers*
- *Power Management*
- *Power Supply*
- *Storage*
- *Product Recycling*



ADVANTAGES

- 1) Energy Saving*
- 2) cost saving*
- 3) Recycling Process*
- 4) Brand Strengthen*
- 5) Less pollution*
- 6) GHG Emissions*
- 7) chemical exposure*
- 8) Green IT implementation*
- 9) Saving energy and resources saves money*
- 10) Renewable energy*

DISADVANTAGES

- 1) Implementation cost*
- 2) Performance*
- 3) Maintenance*
- 4) Adaptation*
- 5) Security leaks*
- 6) IT knowledge*
- 7) Support system*
- 8) Green IT cause more burden to an individual*
- 9) Rapid technology Change*
- 10) Power Management*

EXAMPLE

E.g.- Renewable Energy Sources:-

- *Renewable energy sources don't use fossil fuel. They are available freely, are environmentally friendly and generate less pollution.*
Apple, who is building a new corporate centre, is planning to use most of the building's wind turbine technology, and Google has already built a wind-powered data centre.



METHODS TO CURE CARBON FOOTPRINTING IN GREEN COMPUTING

Improving systems' efficiency

- *Old PC's*
- *Outdated part and insufficient memory*
- *Upgrade the equipment*

Using Renewable Energy in IT

- *Green computing Eco-friendly*
- *Carbon free computing*
- *Solar energy computing*



FIVE WAYS TO REDUCE CARBON FOOTPRINT

- *learn the 5 R's: refuse, reduce, reuse, rot, recycle: Going zero waste is a great step towards combating climate change. ...*
- *bike more and drive less: ...*
- *conserve water and protect our waterways: ...*
- *eat seasonally, locally, and more plants: ...*
- *switch to sustainable, clean energy:*



HOW YOU CAN SUPPORT GREEN COMPUTING

Energy star labeled products

Turn off computer

Optimal brightness level

Use of IT peripherals

Screen Saver

Environmental Companies

Donate or Recycle

Both side printing

Sleep mode

Power Management

Non-petroleum inks

Use VoIP technology

Participate recycling program

Don't buy new printers

Use email

Replace LCD/CRT to OLED

Green packing solution



HOW WE CAN CALCULATE CARBON FOOTPRINT

- *Define what all thing contributes to the carbon footprint*
- *Baseline should be set*
- *Track and analyse the carbon footprint of the organization*
- *Report the result to stakeholders*



CONCLUSION

- *Features of Green computing*
- *Society needs more consumption*
- *Alternative ways to design system*
- *Contribution to green computing*
- *Eco-friendly sustainable component*





THANK YOU