

### 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**

Name: Mr./Ms	Rishi	<b>Bhavesh</b>	Mistry	_

Roll No: 46 Programme: BSc IT/CS Semester: II

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	
7.	09\03\2021	Implementing coding practices in Python using PEP8.	
8.	18\03\2021	PRESENTATION: _Energy management in hard disk	

# Practical 1: introduction and contribution to Wikipedia a.

Description about Wikipedia and its features What is 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.

# BASIC FEATURES OF WIKIPEDIA:

- 1.Create a page
- 2.Edit a page
- 3.Link between pages
- 4.Full page search
- 5. Hierarchical page display
- 6.A list of the most recently edited pages
- 7. Searching with tags

# a. creating account on Wikipedia

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



www.wikipedia.org

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



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

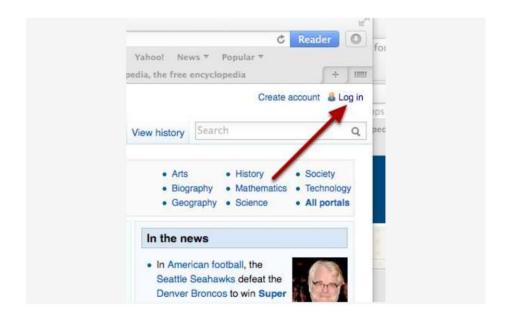


# 4. Log in to your email and confirm your registration by clicking the link in the email.

MediaWiki Mail January 15, 2014 12:44 PM To: Castechtraining Inbox - Exchange Wikipedia email address confirmation 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 brows, http://en.wikipedia.org/wiki/Special:ConfirmEmail/550ba3a47df074a4b5711ab739 7dfd34 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/550ba3a47df074a4b5711ab73 97dfd34

If you don't see an email from MediaWiki Mail, check your spam or junk folder.

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



# b. Creating your page on Wikipedia

- 1. Create an account. You must be a registered user to make changes to existing Wikipedia pages and articles, as well as to create your own. Creating an account is pretty straightforward. I advise using your real name and email address.
- 2. Start small. It pays to start by making small edits to existing pages to test your skills before trying to create new content. I started with pages with which I was already familiar. My son's fencing coach, for example, is an Olympic medalist and has a Wikipedia page. I updated it by adding some biographical information I found on the internet and added a link back to his fan club's website.

By making these small changes, I was able get more familiar with the site's content management system and build my Wikipedia user profile. Once you create an account, every change you make on Wikipedia is recorded on your user page, which anyone can access — anyone being Wikipedia editors and other users. With enough editing and creating activity under your belt, you can become an "auto-confirmed user." This gives you permission to perform certain restricted functions, such as uploading images and moving pages to the public space.

**3. Gather your sources.** While you're feeling your way around Wikipedia, begin gathering sources for the page or article you want to create. This will save you a huge amount of time once you're ready to create your page.

Sources are tremendously important in Wikipedia. Wikipedia is an encyclopedia (not another marketing channel for promoting your product), and this means everything on your page needs to be verified. I can't stress this enough.

Even if you're a notable inventor or a famous person who rowed across the Atlantic in a plastic tub, you can't simply sit down and write a Wikipedia page based on your experience. Sorry, but you'll need third-party sources such as printed material (books and magazines) and online material such as websites, articles, or video to support the information you provide.

Your content must be factual and unbiased. When creating my client's technology page, I had to include information about competitors and their technology, as well as links to their sites. You'll want your facts to be straight so you're not accused of any misrepresentation.

Also consider including images. You're only allowed to use images you own or images not subject to copyright. I learned this the hard way — I had to delay the launch of my client's page while I walked them through the process of uploading their copyrighted images.

**4. Write the copy.** After all those other steps, you are finally ready to get down to the writing and posting of your Wikipedia content. I wrote my client's page in Word first, cut and pasted it into the Wikipedia interface and then formatted it from there. You can add your page to the Sandbox, where you can format it or you can add it to your My Talk page (part of your user account), which is what I did. I chose the My Talk page as content is regularly cleared out of the Sandbox; keeping it in My Talk ensured it wouldn't be deleted.

Formatting the page using "Wiki code" took a little while. It's a tedious process even if you're HTML savvy, which I am, so be sure to allow time for this or hire someone to do it for you. You can learn more about Wiki Code by reading Wikipedia's Help Pages.

**5. Submit the page for review.** Once your page is complete and error-free, you will need to submit it to Wikipedia for review. This process can take as little as a few days or as long as a few weeks or more to get a response.

After waiting about 12 days for a response, I saw that other pages that had been submitted around the same time as mine had gotten their approvals, or challenges, or had been deleted. Eventually, I assumed mine was fine and went ahead and moved it to the public space.

However, shortly after it went live, I noticed that an editor had changed the title of the page and made other edits (but, thankfully, nothing substantial was changed). I now monitor the page and update it as needed (for example, my client recently introduced a new technology-advancing product, which warranted a Wiki page update)

# D. editing your page on Wikipedia

Find the article that has a mistake (wrong information, spelling, etc.)

1. Click on the "Edit" icon.

2. Correct the mistake you have found.

Take a look again. Did you accidentally remove a word? Is there is anything elsecould correct?

3.Click on show preview. It will give you the chance to take a look at the article withyour edits without saving the edit.

**4.Click Publish changes.** When you edited the page and clicked Show preview, click Publish changes to save your edits.

Always do your best to leave an edit summary to describe that changes you have made.

Practical 2 : Creating account, Repository on GitHub and cloning repository on GitHub

a. Creating account :Go to www.github.com



Step 2: Click on sign up



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Step 4- click on create account



# B. Creating repository



Step 2- Sign in using your account:

Sign in to Gibhab

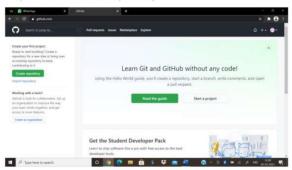
Sign in to Gibhab

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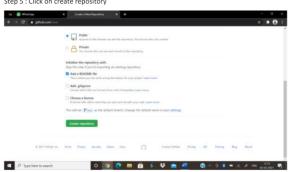
There to Grand Chande are account.

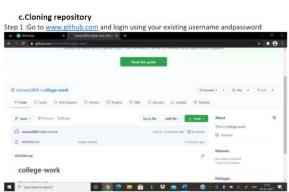
Step 3 :Click on create repository



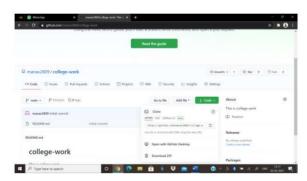


Step 5 : Click on create repository

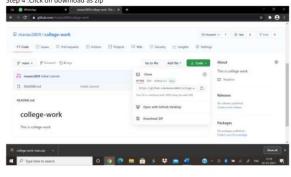




Step 3 :Click on clone or code tab



Step 4 :Click on download as zip



Now your repository will be downloaded on your pc

# OSS OPEN SOURCE SOFTWARE

# What is an 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
- Source code can be repurposed into other new software

# ORGANIZATION:

- RED HAT SOFTWARE
- CREATIVE COMMONS
- LINUX FOUNDATION
- FREE SOFTWARE MOMENTS
- PROJECT JUYPTER
- ECLIPSE FOUNDATION

# ADVANTAGES OF OSS:

- Lesser hardware costs
- High-quality software.
- No vendor lock-in
- Integrated management.
- Simple license management.
- Lower software costs
- Abundant support

# DISADVANTAGES OF OSS:

- The difficulty of use
- Compatibility issues
- Liabilities and warranties
- Hidden costs

# GROUPS PROMOTING OSS: ✓ Open Source Software Institute ✓ Open Source for America ✓ Mil-OSS

# DIFFERENCE BETWEEN OPEN SOURCEAND FREE SOURCE:

- OPEN SOURCE SOFTWARE:

   Open source is a development methodology
- Open source has a distribution of licence
- Open source just has the availability of source code
- Open source can be distributed freely
- Open source have an integrity authors source code

of

# **FREE SOURCE SOFTWARE**

- Free software is a social movement
- program for • Freedom to run any purpose
- Free software gives freedom to study about there code
- It allows user to distribute the copies
- Freedom to modify the program and distributein public

# **PRACTICAL 5**

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

# DESCRIBING GREEN COMPUTING:

Green computing is the environmentally responsible and eco-friendly use of computers and their resources. In broader terms, it is also defined as the study of designing, manufacturing/engineering, using and disposing of computing devices in a way that reduces their environmental impact.

The strategies of Green computing have decreased the consumption of overhead energy and have used the server maximum through a strategy including server virtualization. But technology trends, such as increase in data analytics and artificial intelligence, can reduce progress in green computing strategies.

# **Examples of Green Computing**

- 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 center, is plan- ning to use most of the building's wind turbine technology, and Google has already built a wind-powered data center.

At the most simple level, green computing is not a rocket science and certainly does not require large amounts of cash in case of up-front investment. As stated above, the active step for a green computing takes a little effort, yet low energy consumption usually changes to immediate savings.

# Steps that we can take to contribute to green computing:

- 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 un- used 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.
- Purchase energy saving hardware If you don't need super-fast com- puting 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

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# **PRACTICAL 5**

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 ma- terial which can be hazardous to the environment so make sure you dispose of old components effectively. Don't just throw broken tech- nology 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.