

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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Roll No: 04 Programme: BSc 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 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)

Name: Mokshi Dharmesh Aya Roll No: 04

Sr. No.	DATE	TITLE	SIGN
1.	2/2/2021	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.	9/2/2021	Creating account, repository on GitHub and Cloning repository in GitHub Page	
3.	16/2/2021	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.	9/3/2021	WRITING EMAIL	
5.	25/2/2021	Using practical examples, describe green computing. List and explain the steps that you take to contribute to green computing	
6.	23/3/2021	WRITING BLOGS	
7.	9/3/2021	Implementing coding practices in Python using PEP8.	
8.	12/2/2021	PRESENTATION:	

MOKSHI AYA ROLL NO.04 FYCS

PRATICAL NO. 1 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; 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 unauthorative. 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,

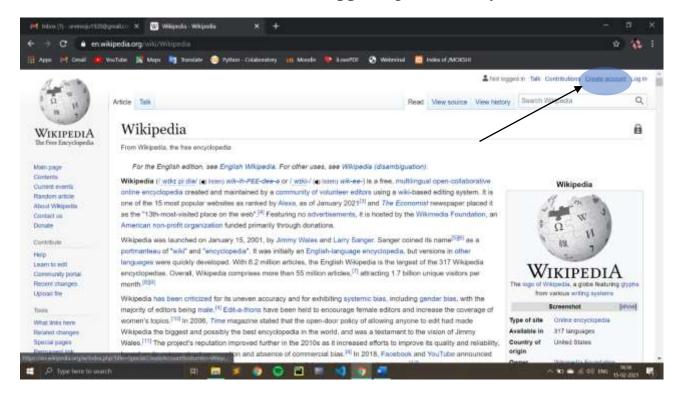
Wikiscanner, where users could track the sources of edits to Wikipedia entries. Griffiths reported that self-serving edits typically involved whitewashing or removal of criticism of a person or organization or, conversely, insertion of negative comments into the entry about a competitor. Wikipedia depends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

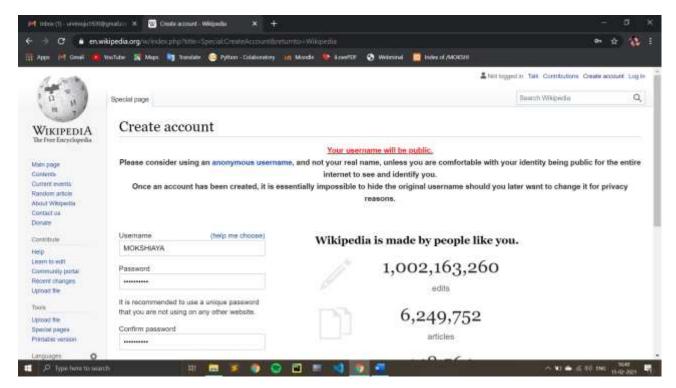
Features of Wikipedia:

- 1. Wikis can be edited by multiple approved people.
- 2. All edits are tracked in the page's history.
- 3. Linking between pages on a wiki is very simple.
- 4. Pages are automatically placed in a list of all pages.
- 5. A recent changes page shows all edits made to the wiki.
- 6. Any bad edits can be easily reverted
- 7. Note taking.
- 8. Knowledge management.
- 9. Community Websites.
- 10. Intranets.

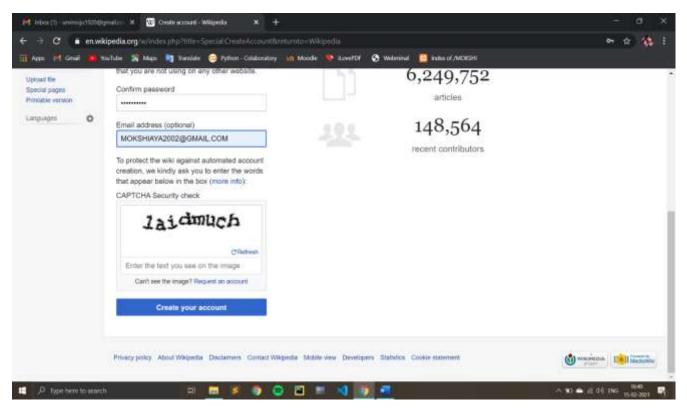
B. CREATING ACCOUNT ON WIKIPEDIA.

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

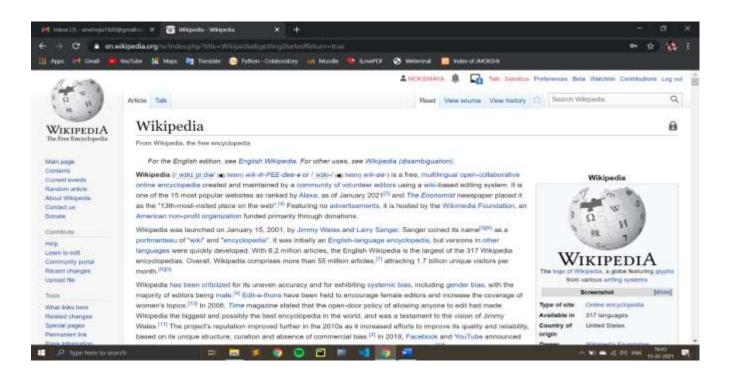




• Enter your account information and the captcha, and click "Create Account"



• After creating account this page will appear:

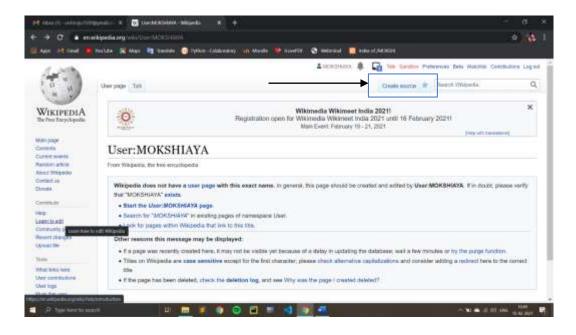


C. CREATING YOUR PAGE ON WIKIPEDIA.

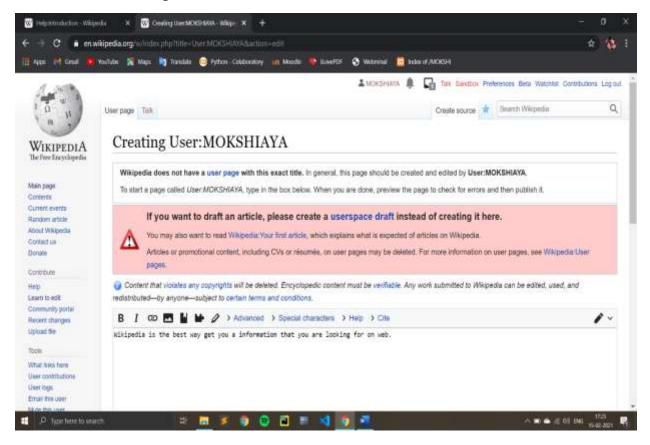
- 1. To create a Wikipedia.org page, you must have a registered account. Log in or create one.
- 2. Click on your account



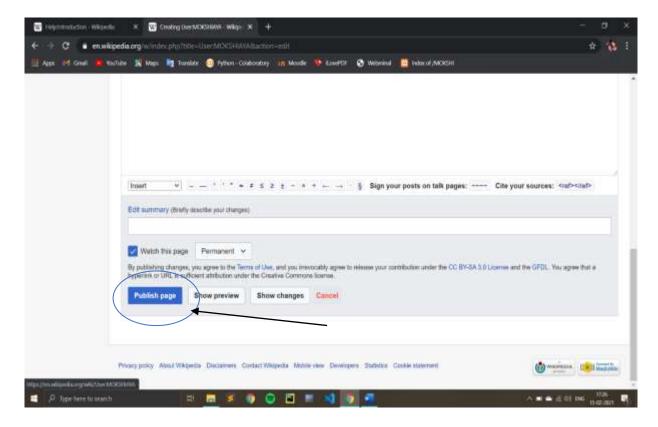
3. Click on create source



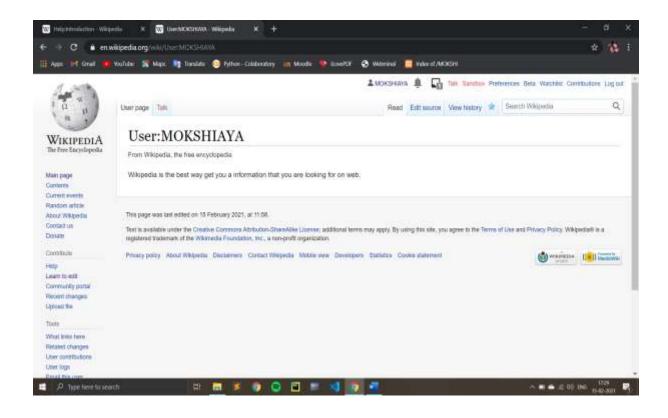
5. You have to write the content you want in your Wikipedia page as shown in the image below



5. Click on publish page to button to create/publish your page

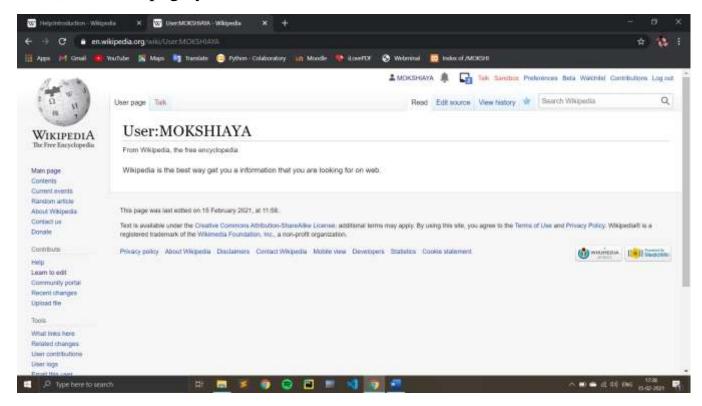


• Your Wikipedia page will be created as shown below.

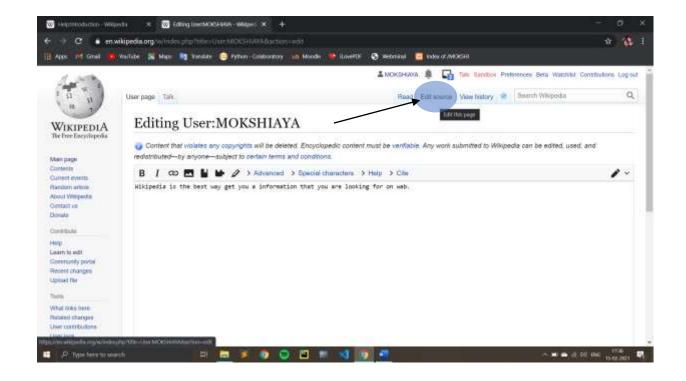


D. EDITING YOUR PAGE ON WIKIPEDIA.

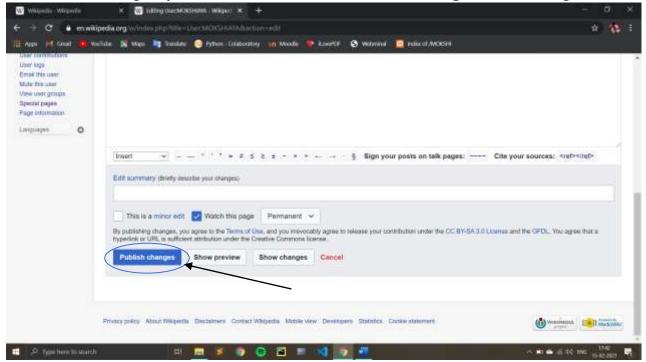
1)Go to the page you want to edit



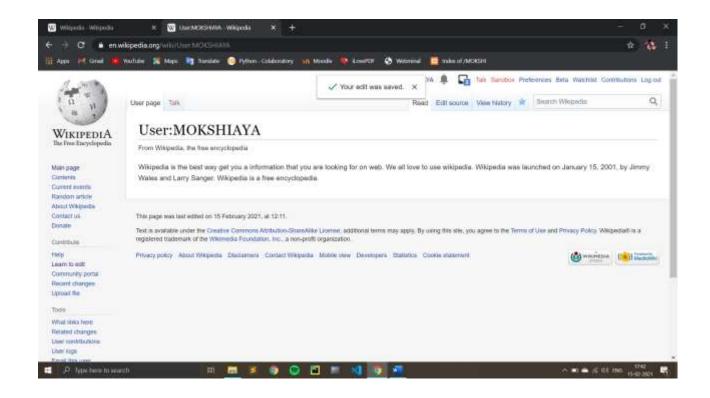
2) Click on edit source



3) Do the changes you wanted to make and click on publish changes



 Your changes will be made and will be visible to all users visiting the page



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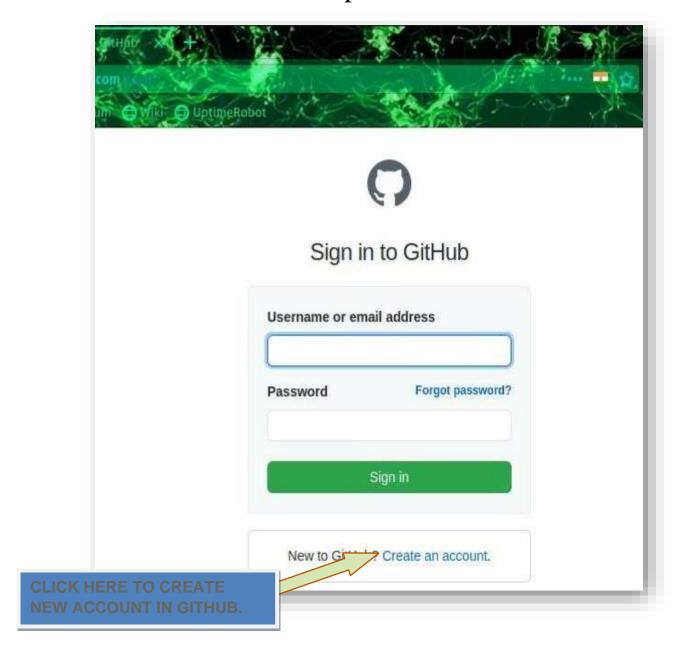
PRACTICAL NO. 2

- **INDEX**
- CREATING ACCOUNT IN GITHUB
- CREATING A REPOSITORY
- CLONING REPOSITORY

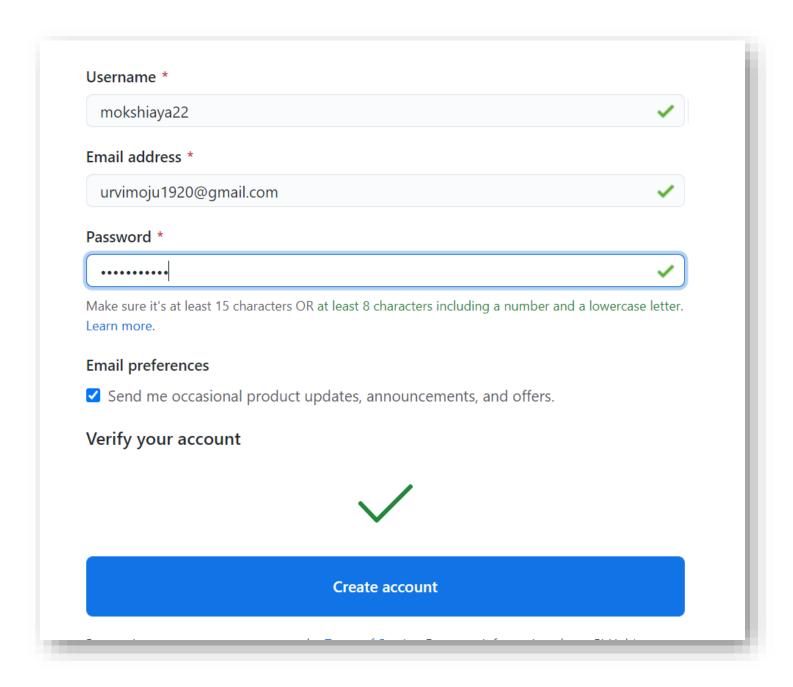
AIM: Creating account, repository and cloning repository in github.

1. CREATING ACCOUNT IN GITHUB.

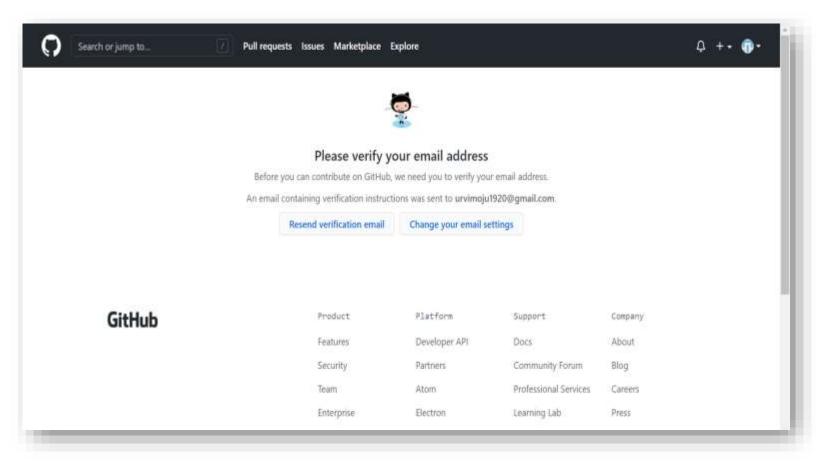
Step1: Type GitHub login in any browser and search it and then click on official github link. After that Github login page will appear then click on Create an account Option.

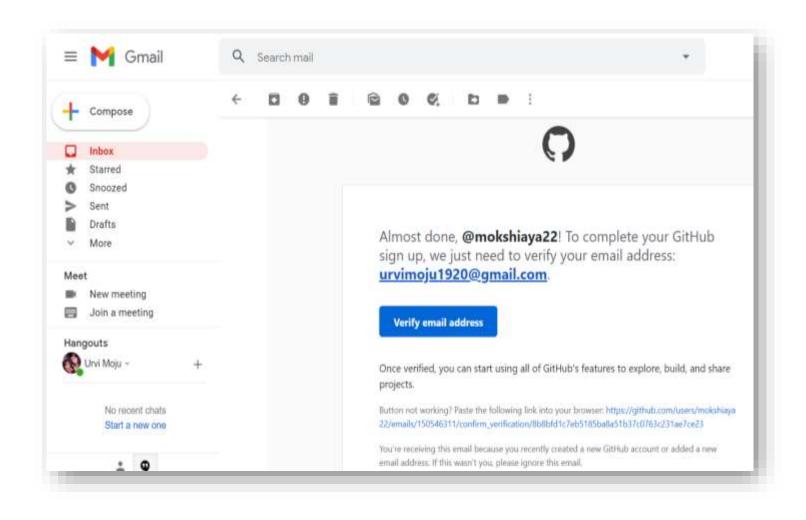


Step2: Now enter username, Email id and set password for your account and then click on verify account and solve the captcha (it will ask three times to solve the given task) and after that click on the create account.



Step3: After clicking on the create account you will receive a mail on your email account which you have entered while the creating account for verification. Now you have to just click on the mail and then enter the username and password after completing this your account will be verified.





Step4: After verification you will see github welcome page with some options you can select according to your preference or you can just click on complete setup. Now you have successfully created account in Github.

	Welcor	ne to Gith	Hub	
Woohoo	! You've joined millions o	of developers who are o	doing their best work	
G	BitHub. Tell us what you'r	e interested in. We'll he	elp you get there.	
	What kind of work do	you do, mainly?		
	Software Engineer	Stud I go to s		
	Product Manager I write specs	UX & D	No. of Control of Cont	
	Data & Analytics I write queries	II WAS CHANGE HALLING	Marketing & Sales Hook at charts	
	Teacher	Oth	ar.	
	I educate people	I do my ov		
	How much programm	ing experience do you	have2	
_	How much programm	ing experience do you	have?	
	School work and student projects	Use the GitHub API	have?	
ONS	School work and student projects I am interested in: languages, frameworks	Use the GitHub API s, industries s and projects that fit your interests, jamstack	· <u>ŵ</u>	
ONS TLY	School work and student projects I am interested in: languages, frameworks We'll connect you with communities	Use the GitHub API s, industries s and projects that fit your interests.	· <u>ŵ</u>	

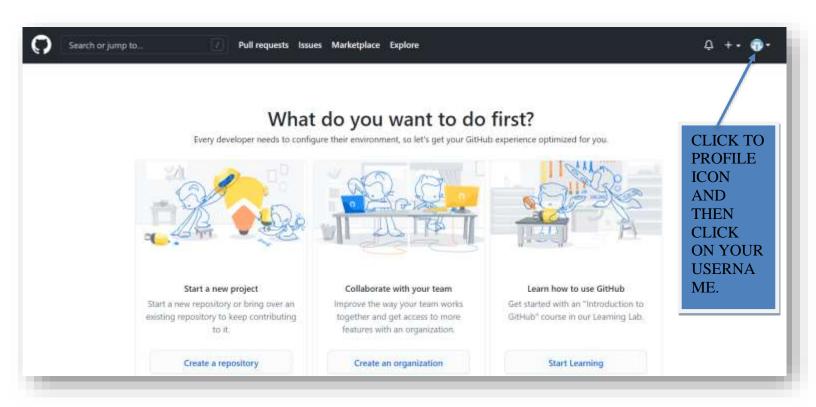
AFTER SELECTING OF ACCORDING TO YOU PREFERENCE OR DIR CLICK ON THIS OPTION

2. CREATING A REPOSITORY.

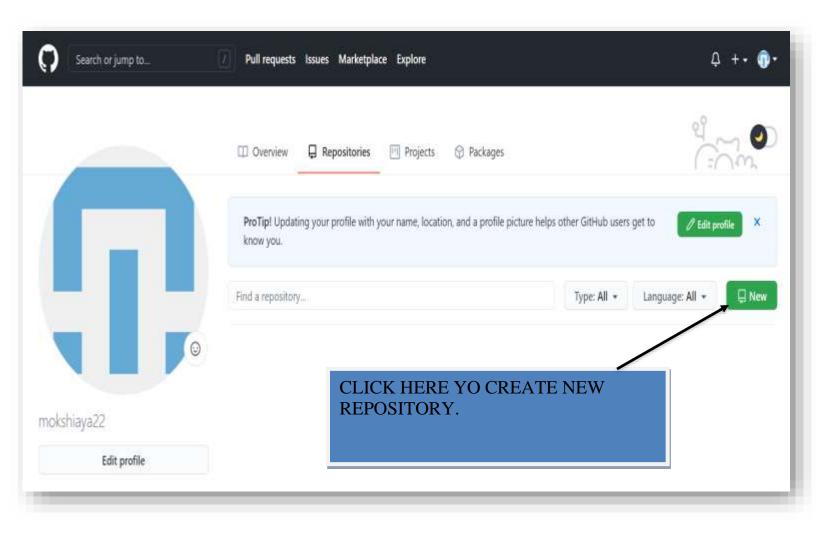
Step1: To create a repository click on create repository option on the github page.



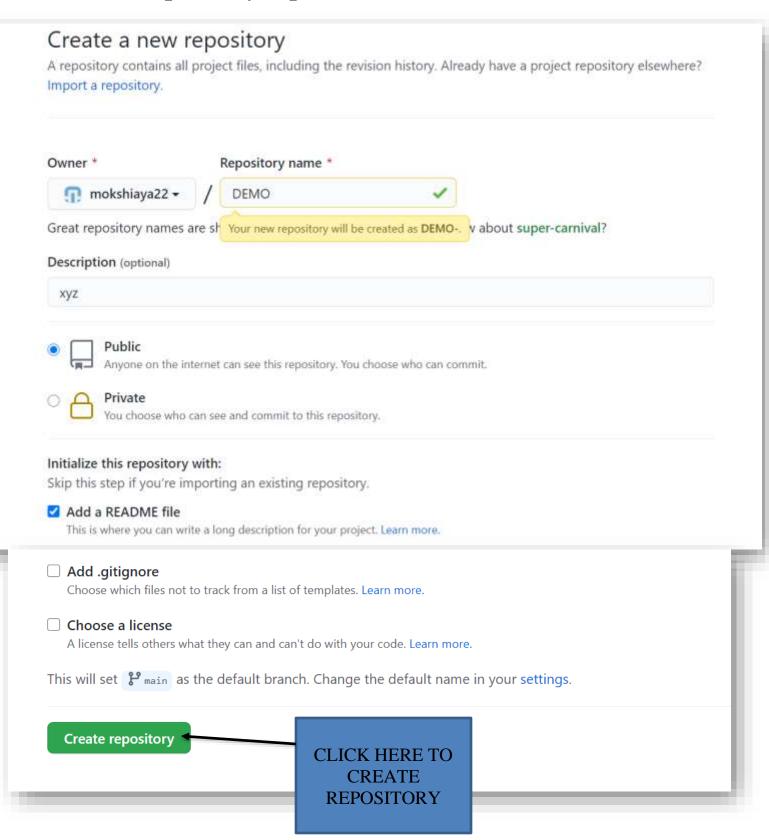
• IN CASE IF YOU CAN'T FIND THE ABOVE OPTION THEN FOLLOW THIS STEP



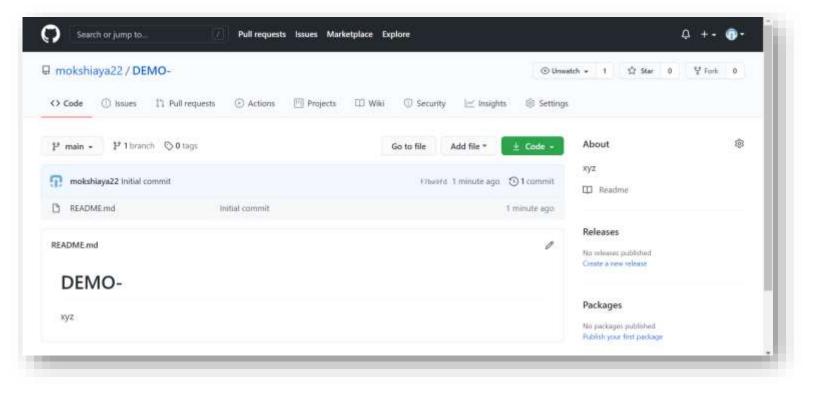
After clicking on username it will open your profile page then you have to click on repository (here you can see all the repository created by user) and for creating a new repository click on new option.



Step2: Enter repository name and description. Also you will have to option PUBLIC (by selecting this option your repository will be visible to everyone) and PRIVATE (by selecting this option your repository will not be visible to others). And you can also add a readme file, git ignore and license. after selecting Option according to your choice click on Create Repository Option.

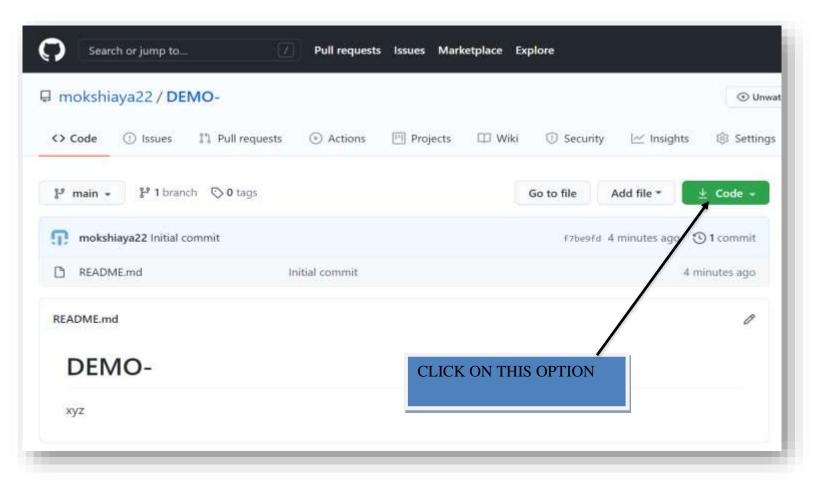


• NOW THE NEW REPOSITORY IS CREATED SUCCESSFULLY.

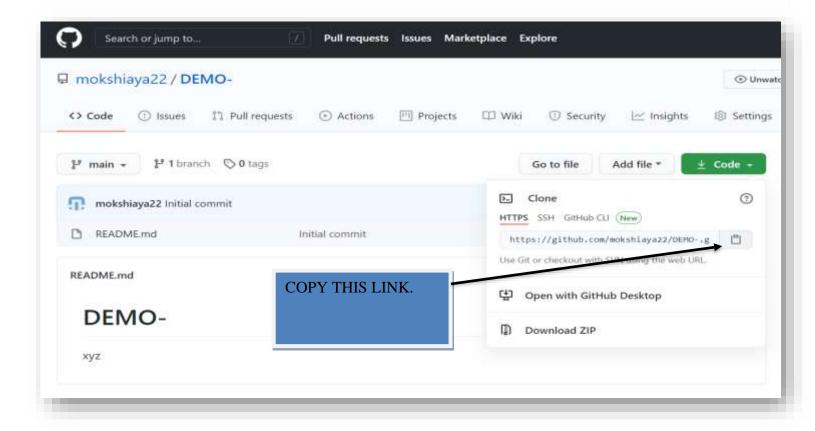


3. Cloning a Repository

STEP1: Click on the CODE option



Step2: Copy the link of the Repository.



MOKSHI AYA FYCS-04

PRACTICAL NO. 3 BASIC UNDERSTANDING ON FREE AND OPEN-SOURCES SOFTWARE

- **♣** INDEX
 - 1) OPEN SOURCE SOFTWARE
 - 2) FREE SOFTWARE
 - 3) DIFFERENCE BETWEEN FREE AND OPEN SOURCE SOFTWARE

A. OPEN SOURCE SOFTWARE

Definition:

- 1. Open-source software is a program that has publicly available code which anyone with technical expertise canuse, modify and distribute.
- 2. 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 thesoftware in any way they choose.
- 3. They can fix bugs, improve functions, or adapt the software tosuit their own needs.

Open source software is released through a specific kind of license that makes its source code legally available to end- users. There are many such licenses but typically software isconsidered open source. It is available in source code form without additional cost, meaning users can view the code that comprises the software and make any kind of changes toit they want.

The source code can be repurposed into other new software, meaning anyone can take the source code and distribute their own program from it.

• Licenses used for Open source software:

Different licenses allow programmers to modify the software with various conditions attached. According to the Black Duck KnowledgeBase, a database of some two million open source projects, five of the most popular licenses are:

- 1. MIT License
- 2. GNU General Public License (GPL) 2.0
- 3. Apache License 2.0
- 4. GNU General Public License (GPL) 3.0
- 5. BSD License 2.0 (3-clause, New or Revised)

• Advantages of Open source software

- 1.Its quality can be easily and greatly improved when itssource code is passed around, tested, and fixed.
- 2.It offers a valuable learning opportunity for programmers.
- 3. They can apply skills to the most popular programs available today.
- 4. It can be more secure than proprietary software becausebugs are identified and fixed quickly.
- 5. Since it is in the public domain, and constantly subject toupdates, there is little chance it can become unavailable or quickly outmoded an important plus for long-term projects.

• Disadvantages of Open source software

- 1. Some open source applications may be tricky to set up and use. Others may lack user-friendly interfaces or features that user may not be familiar with.
- 2. Many types of proprietary hardware need specialised drivers to run open source programs, which are often only available from the equipment manufacturer.
- 3. Open source software licences typically contain only limited warranty and no liability or infringement indemnity protection.
- 4. Software that is free up-front but later costs money to run can be a major burden, especially if you haven't considered hidden costs from he outset.
- 5. Vulnerable to malicious users.

Some examples of Open source software.

1) Linux



2) Open office



3) ClamWin antivirus



4) Chromium



5) Android



6)Wordpress



7) Python



B. FREE SOFTWARE

Definition:

- 1. Free software (or libre software) is computer software distributed under terms that allow users to run the software for any purpose as well as to study, change, and distribute it and any adapted versions.
- 2. Free software is a matter of liberty, not price, all users are legally free to do what they want with their copies of a free software (including profiting from them) regardless of how much is paid to obtain the program.
- 3. Computer programs are deemed "free" if they give end-users (not just the developer) ultimate control over the software and, subsequently, over their devices.

• Licenses used for Free software

Unless the applications' licenses are compatible, combining programs by mixing source code or directly linking binaries is problematic, because of license technicalities. Programs indirectly connected together may avoid this problem.

The majority of free software falls under a small set of licenses. The most popular of these licenses are:

- 1. The MIT License
- 2. The GNU General Public License v2 (GPLv2)
- 3. The Apache License
- 4. The GNU General Public License v3 (GPLv3)
- 5. The BSD License
- 6. The GNU Lesser General Public License (LGPL)
- 7. The Mozilla Public License (MPL)
- 8. The Eclipse Public License

• Advantages of Free software

- 1. Available at minimal cost.
- 2. Provides full freedom for editing.
- 3. No imposed upgrades.
- 4. No spying on users
- 5. Auditability and Provides better security.
 - Disadvantages of Free software
- 1. **No Guaranteed Support.** :Some free software programs don't have a large user base, and therefore the user support for certain programs can be lacking or nonexistent
- 2. **Inconsistent Updates**.: Since many members of the free software community develop the code in their spare time as unpaid volunteers, there is a chance that some of the prog
- 3. **No Guaranteed Support**.: Some free software programs don't have a large user base, and therefore the user support for certain programs can be lacking or nonexistent
- 4. **Varying Interfaces.**; Some free software programs have a much different user interface than their commercial counterparts, and can have a steep learning curve.

- Some examples of Free software.
- 1) Mozilla firefox



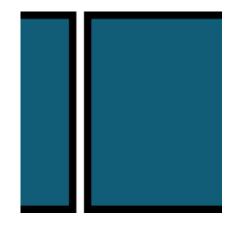
2) Audacity



3) Libre office



4) Shotcut (video editor)



5) GIMP



6)Inkscape



7) Blender



8) Thunder Bird



C. Difference between OSS and FS

FREE SOFTWARE

- 1. Software is an important part of people's lives.
- 2. Software freedom translates to social freedom.
- 3. Freedom is a value that is more important than any economical advantage.
- 4. Examples: The Free Software Directory maintains a large database of free-software packages. Some of the best-known examples include the Linux kernel, the BSD and Linux operating systems, the GNU Compiler Collection and C library; the MySQL relational database; the Apache web server; and the Sendmail mail transport agent.

OPEN SOURCE

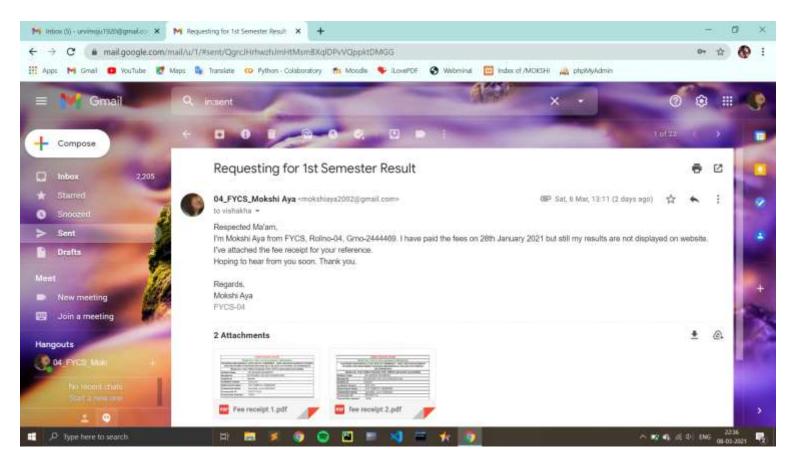
- 1. Software is just software. There are no ethics associated directly to it.
- 2. Ethics are to be associated to the people not to the software
- 3. Freedom is not an absolute concept. Freedom should be allowed, not imposed.
- 4. Examples: Prime examples of open-source products are the Apache HTTP Server, the ecommerce platform is Commerce, internet browsers Mozilla Firefox and Chromium (the project where the vast majority of development of the freewareGoogle Chrome is done) andthe full office suite LibreOffice.

Mokshi Aya

FYCS - 04

Practical No. 4

Write an Email



Practical No 5

GREEN COMPUTING

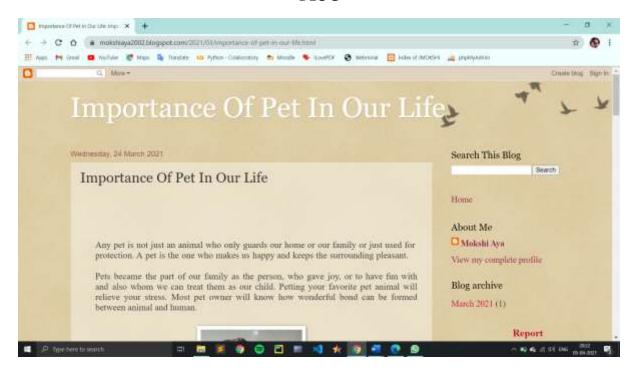
- A. Using practical examples, describe green computing. List and explain the steps that you take to contribute to green computing.
- Green computing is environmentally responsible and eco-friendly use of computers, It
 is also defined by being the using and disposing of computing devices in a way that
 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.

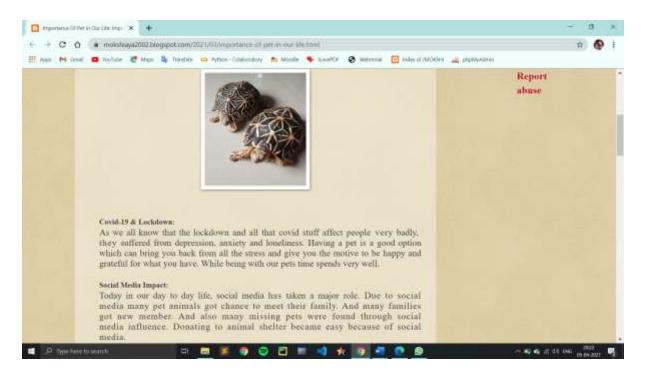
Mokshi Aya

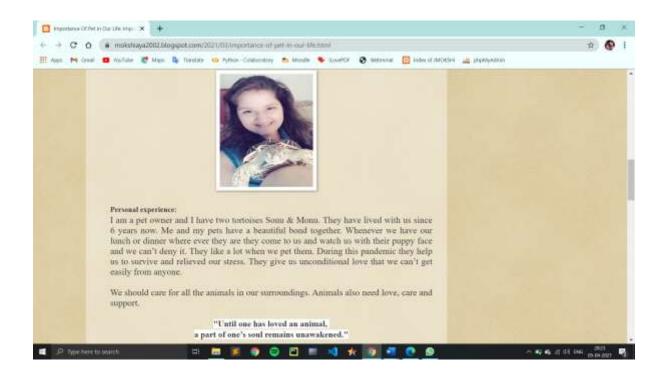
FYCS-04

Practical No 6

BLOG







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:

1. Use 4-space indentation and no tabs. Example:

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:

```
"""This is single line docstring"""

"""This is

a

multiline comment"""
```

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:

```
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 0 is 1" )
else:
    for i in range ( 1 , num + 1 ):
    factorial = factorial * i
    print ( "The factorial of" , num, "is" , factorial)</pre>
```

```
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>
```



GROUP 2

Member's

- 1) Mayuresh Shelke: 57 6) Khushi Kava: 80
- 2) Nidhi Shetty: 58 7) Naveen: 1
- 3) Devansh Naik:33 8) Purvi Rawal:48

9) Neha Yadav: 68(A)

- 4) Mokshi Aya: 4
- 5) Vrinda Nair: 34

Create Account & Login

How to Create Account & Login ID.

Create Account & Login

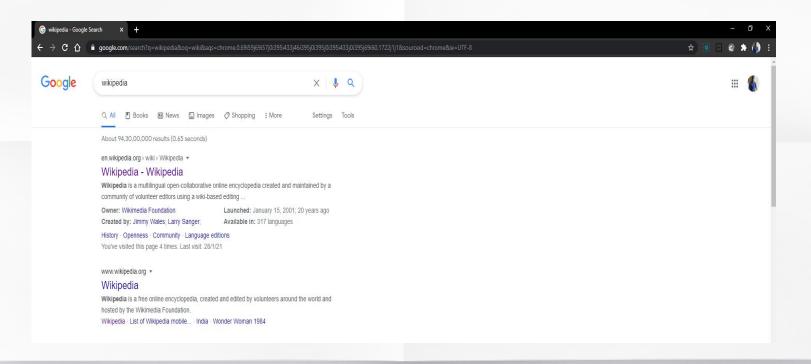
Create Account

- 1) Username:
- 2) Password:
- 3) Email Id:
- 4) Captcha

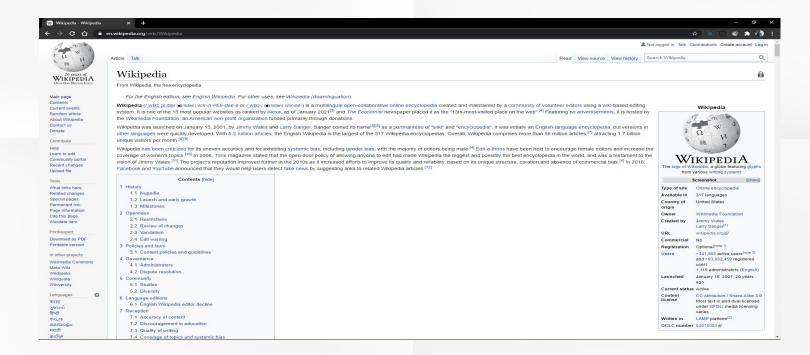
Login

- 1) Username
- 2) Password

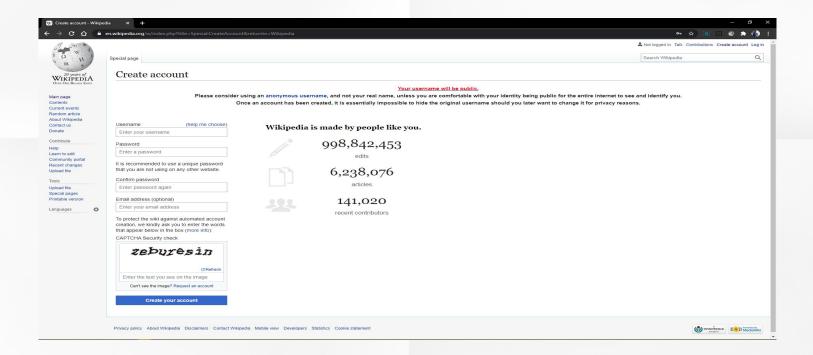
Search



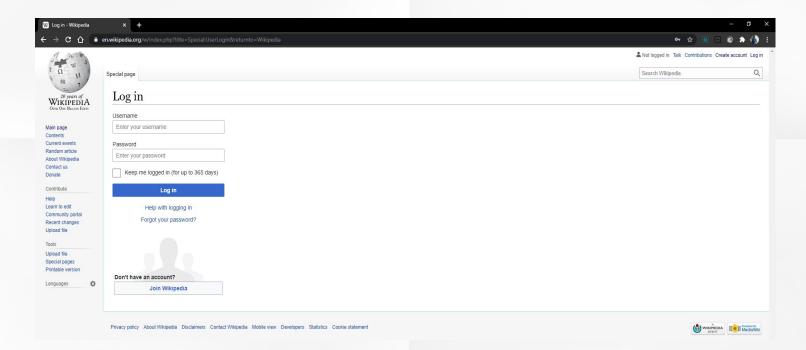
Wikipedia



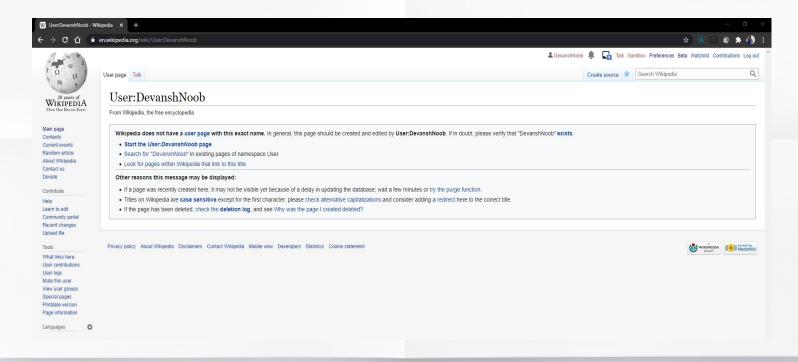
Create Account



Login In



logged in



Login Method!

User Profile

- 1) Basic Info.
- 2) Internationalizati on.
- 3) Signature.
- 4) Email.

Appearance

- 1) Skin
- 2) Date Format
- 3) Time zone
- 4) Files
- 5) Diffs
- 6) Languages

Editing

- 1) General Option
- 2) Editor
- 3) Preview

Elements

Recent Changes

- 1) Display Option
- 2) Advanced
- 3) Changes Show
- 4) Pending Changes

Watchlist

- 1) Edit Watchlist
- 2) Display Option
- 3) Advanced Options
- 4) Changes Shown
- 5) Watched Shown
- 6) Token
- 7) Revision Scoring on watchlist & Contributions

Gadgets

- 1) Browsing
- 2) Watchlist
- 3) Editing
- 4) Appearance
- 5) Advanced
- 6) Testing & Development

Elements!

Search

- 1) Default
- 2) Strict Mode
- 3) Redirect Mode
- 4) Classic Prefix Search
 - AdvancedSearch

Beta Feature

- 1) New Video
- 2) Reference Previews
- 3) New Wikitext Mode
- 4) Visual Difference
- 5) Paragraph Based
- 6) Content Translate

Notification

- 1) Email Options
- 2) Notify
- 3) Cross-Wiki
- 4) Must User

