



**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. Abhishek Manojkumar Pal

Roll No: 55 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.		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: _____	

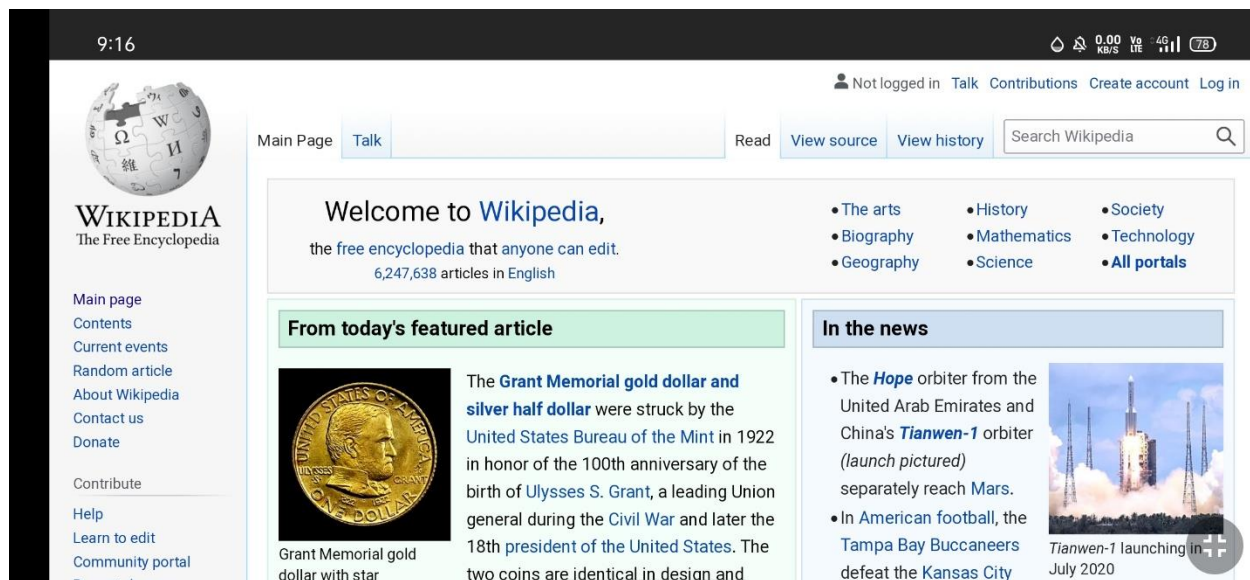
Practical 1

a) Description about Wikipedia and its features

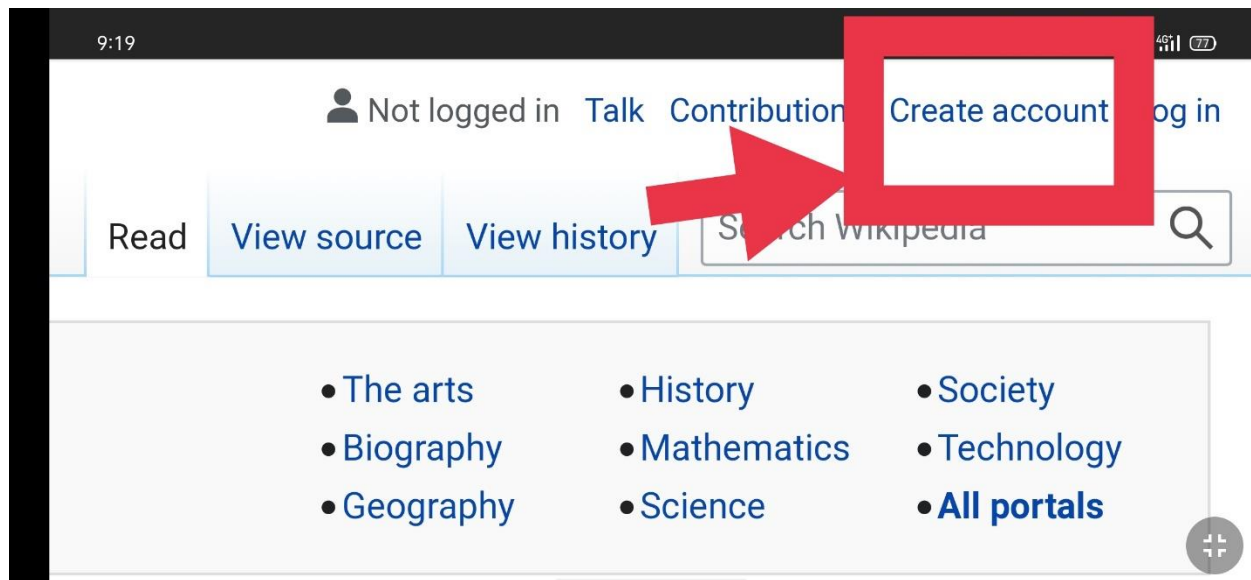
Wikipedia is a free, open content online encyclopedia created through the collaborative effort of a community of users known as Wikipedians. Anyone registered on the site can create an article for publication; registration is not required to edit articles. Wikipedia was the only non-commercial site of top ten.

b) Creating Account on Wikipedia

- Go to www.wikipedia.org and choose “English”



- Click “Create account” on the upper right side of your browser.



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

8:29

Learn to edit
Community portal
Recent changes
Upload file

Tools
Upload file
Special pages
Printable version
Languages

Username (help me choose)
Enter your username

Password
Enter a password

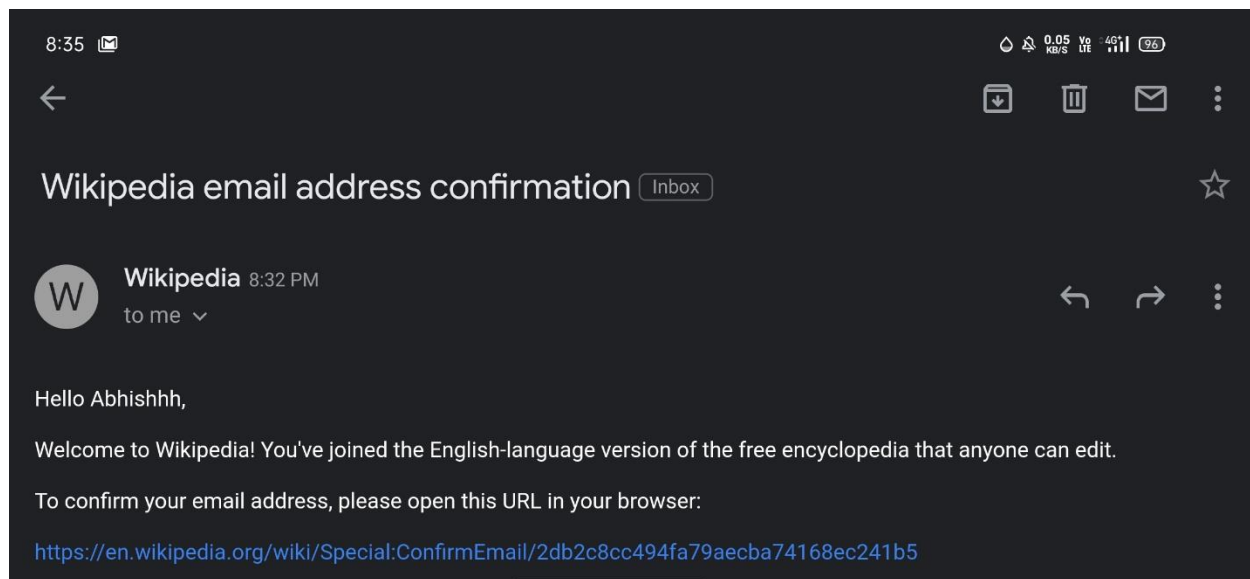
It is recommended to use a unique password that you are not using on any other website.

Confirm password
Enter password again

Email address (optional)
Enter your email address

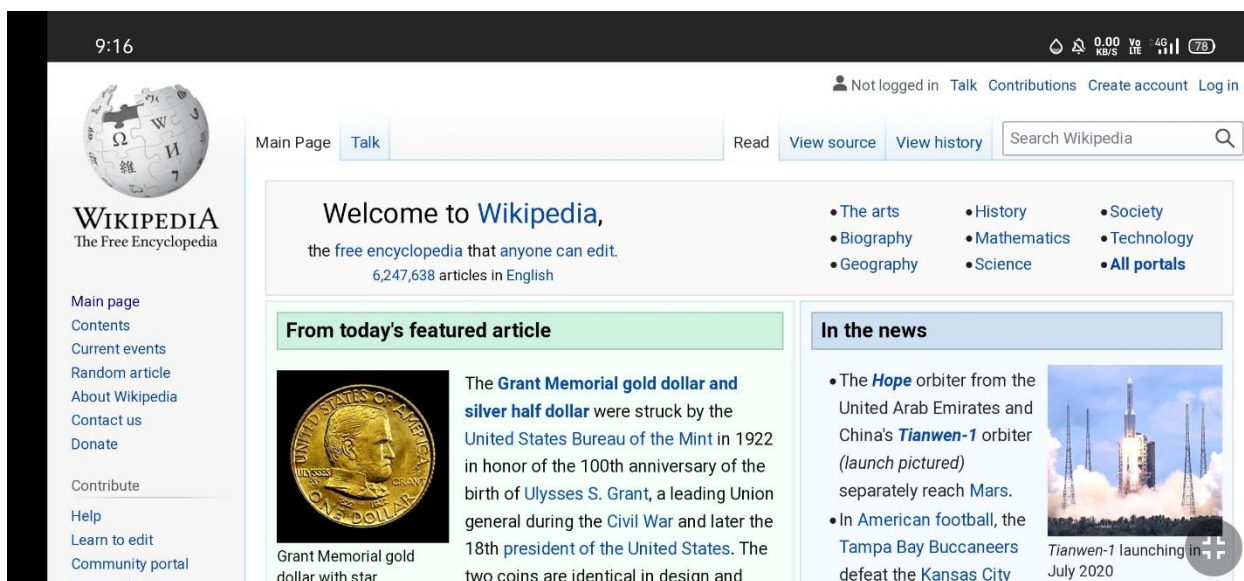
To protect the wiki against automated account creation, we kindly ask you to enter the words that appear below in the box [\(more info\)](#):

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



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

- 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 you first page on Wikipedia

On the search results page for the term you enter, the option to "ask for it to be created" will appear. Click on it to be taken to the Wikipedia article wizard.

The screenshot shows the Wikipedia search results page for the term "Abhishek Pal". The page layout includes a top navigation bar with the user's name "Abhishek", a search bar, and links to "Talk", "Sandbox", "Preferences", "Beta", "Watchlist", "Contributions", and "Log out". The left sidebar contains the Wikipedia logo and a list of links: "Main page", "Contents", "Current events", "Random article", "About Wikipedia", "Contact us", "Donate", "Contribute", "Help", "Learn to edit", and "Community portal". The main content area is titled "Search results" and shows a search bar with the text "Abhishek Pal" and a "Search" button. Below the search bar, it indicates "Results 1 – 20 of 347". There are two dropdown menus: "Advanced search:" with "Sort by relevance" selected, and "Search in:" with "(Article)" selected. A message states: "The page **'Abhishek Pal'** does not exist. You can *ask for it to be created*, but consider checking the search results below to see whether the topic is already covered." Below this message, the first search result is "Teri Bhabhi Hai Pagle". On the right side, there is a section titled "Results from sister projects" which includes a link to "Preity Zinta" and a snippet of text: "never great pals, but we vibe so well on-screen that to the media".

8:37 0.42 KB/s 4G 59

Abhishek Abhishek Talk Sandbox Preferences Beta Watchlist Contributions Log out

Special page Search Wikipedia

Search results Help

Abhishek Pal Search

Results 1 – 20 of 347

Advanced search: Sort by relevance ×


Search in: (Article) ×

The page **"Abhishek Pal"** does not exist. You can *ask for it to be created*, but consider checking the search results below to see whether the topic is already covered.

Teri Bhabhi Hai Pagle

Results from sister projects

Preity Zinta
never great pals, but we vibe so well on-screen that to the media

 **Warning:** There is an ongoing [scam](#) targeting new users and Articles for Creation participants. Users pretending to be volunteers will ask for money or other forms of payment in exchange for assistance, or to have a draft or article published for them. Real Wikipedia editors and reviewers are all *unpaid volunteers*, and will **never** contact or solicit anyone for payment of any kind in exchange for assistance. If someone contacts you with such an offer, *it is a scam*. **Do not follow their directions or arrange to send any kind of payment.** Instead, please send a copy of the email, including headers, to paid-en-wp@wikimedia.org. See [this scam warning](#) for detailed information.

Note: Alternately, you can choose to “Practice in the community sandbox,” which is recommended for new users unfamiliar with publishing on Wikipedia.

Select the appropriate option to let Wikipedia know if you're a paid editor, you're writing about yourself, or someone you know/are close to, or if you're writing about a subject to which you have no connection.

8:40

0.00 KB/s 4G LTE

Help
Learn to edit
Community portal
Recent changes
Upload file

Tools
Special pages
Printable version
Languages

created, but consider checking the search results below to see whether the topic is already covered.

Creationism
Ptolemy. **Articles** arguing that geocentrism was the biblical perspective appeared in some early **creation** science newsletters associated with the **Creation Research**
154 KB (15,747 words) - 17:36, 17 January 2021

Articles of Confederation
Territory and laid the groundwork **for** the eventual **creation** of new states. While it didn't happen under the **articles**, the land north of the Ohio River
72 KB (8,363 words) - 05:49, 1 February 2021

Creation
Creation may refer to: **Creation** ex nihilo, the concept that matter was created by God out of nothing **Creation** myth, a religious story of the origin of
4 KB (389 words) - 03:18, 2 January 2021

Articles on the Westminster Confession of Faith
Articles on the Westminster Confession of Faith (1954/1955) by Gordon Haddon Clark 2282809 **Articles** on the Westminster Confession of Faith Gordon Haddon
Texts from Wikisource

Wikipedia
extent as a result... I just don't have the time to find lead reviewers **for** the **articles** listed [in "General and Other"]. The problem is that it is VERY difficult
Quotes from Wikiquote

You will have to identify yourself so that Wikipedia can verify that you can be a page owner. Now you can start your editing your page

8:45

7.00 KB/s 4G LTE

en.wikipedia.org/w/index.php?title=User:Abhishhh/sandbox&action=edit&redlink=

Donate

Contribute

Help
Learn to edit
Community portal
Recent changes
Upload file

Tools
What links here
User contributions
User logs
Mute this user
View user groups
Special pages
Page information

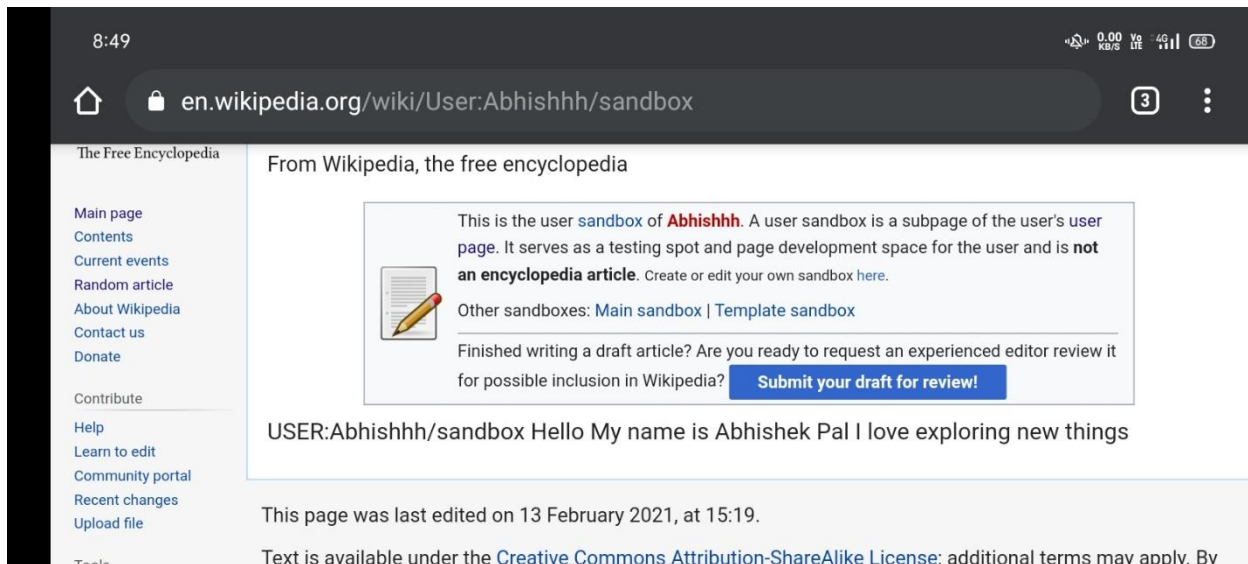
Any work submitted to wikipedia can be edited, used, and redistributed—by anyone—subject to certain terms and conditions.

B I > Advanced > Special characters > Help > Cite

{{User sandbox}}
<!-- EDIT BELOW THIS LINE -->
USER:Abhishhh/sandbox |

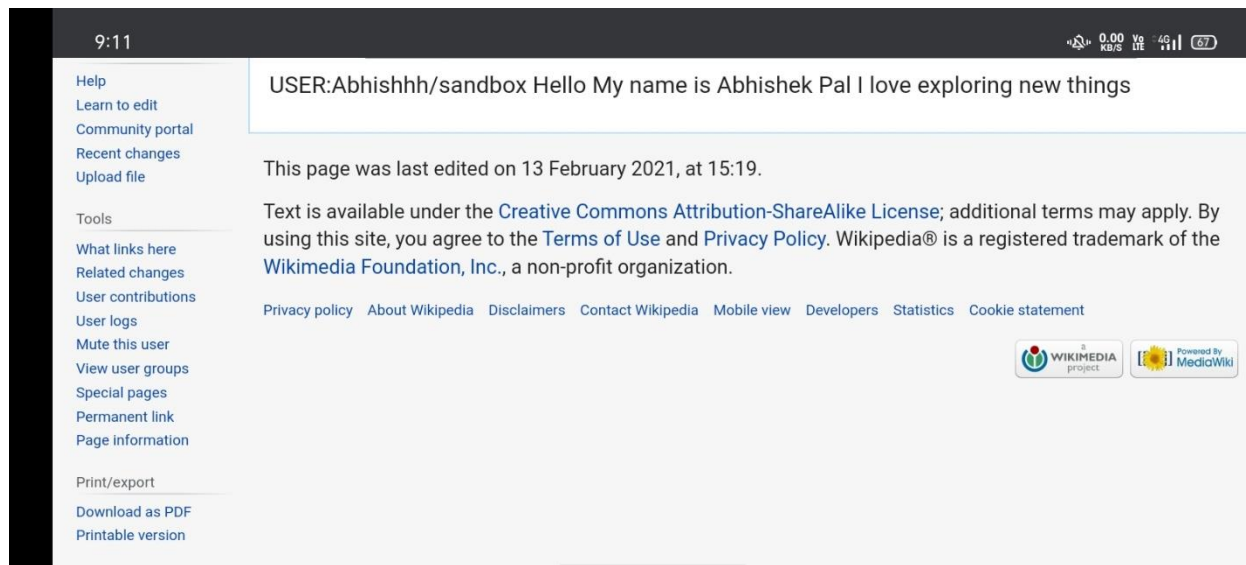
In the pop-up box that appears, select “Start editing” to begin writing your article in the appropriate field.

When finished with your edits, click “Publish” to save your article to draft. Being familiar with basic HTML can help you build your Wikipedia page.



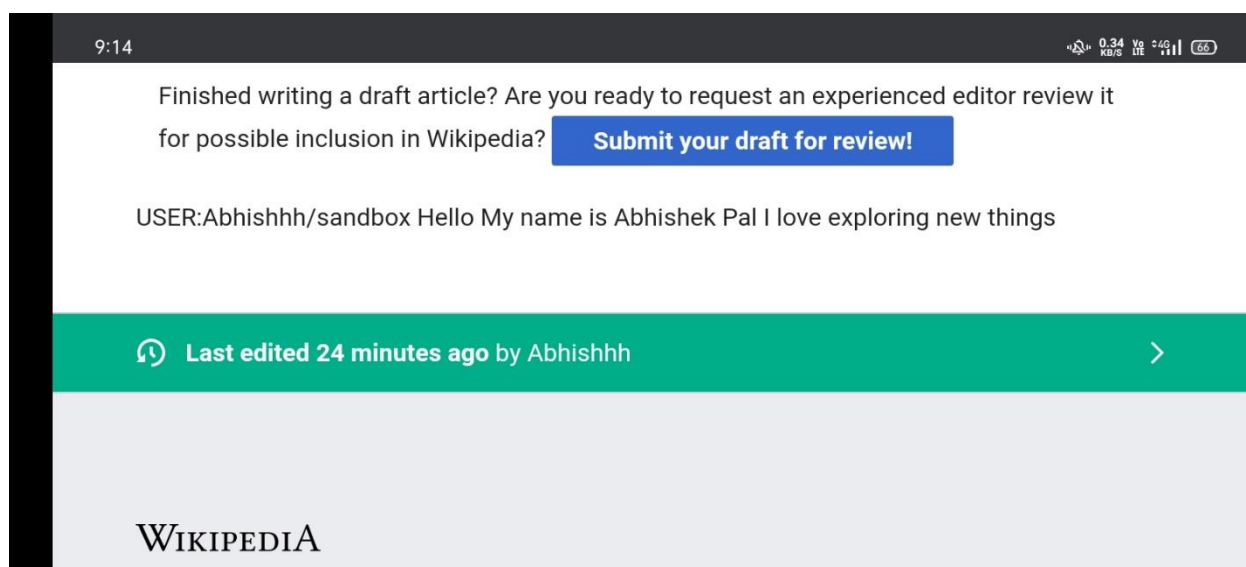
D) Editing your page on Wikipedia

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



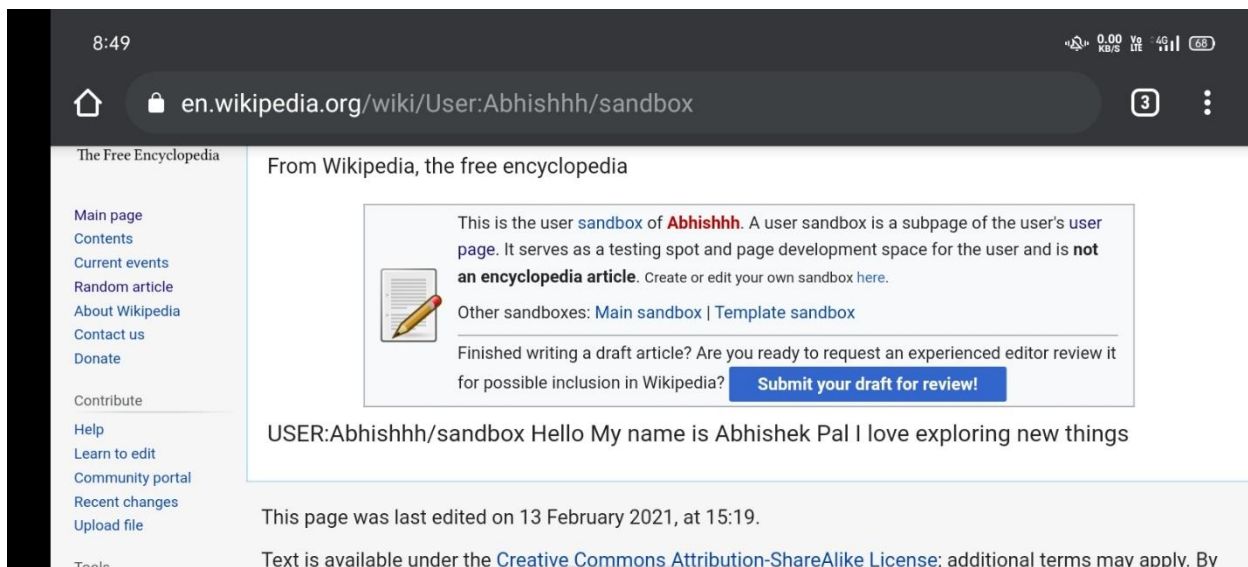
Click on the “Edit” icon. Correct the mistake you have found.

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



Click on Show preview. It will give you the chance to take a look at the article with your edits without saving the edit.

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 in GitHub

a) Creating account:-

1. Go to <https://github.com/>

[Sign up](#)

Where the world builds software

Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world.

Sign up for GitHub

56+ million
Developers

3+ million
Organizations

2.Type your user name, your email address, and a password.



Join GitHub

Username *

Abhishek-droid55



Email address *

palabhishek078@gmail.com



Password *

.....|



Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)

Email preferences

- ☒ Send me occasional product updates, announcements, and offers.

Verify your account

3. Click the green Create an account button. It's below the form.
4. Complete the CAPTCHA puzzle. The instructions vary by puzzle, so just follow the on-screen instructions to confirm that you are a human.
5. Click the Verify email address button in the message from GitHub. This confirms your email address and returns you to the sign-up process.
6. Select your preference and submit.



[GitHub] Please verify your email address.



Inbox



GitHub 12:03 PM

to me ▾



Almost done, **@Abhishek-droid55**! To complete your GitHub sign up, we just need to verify your email address: **palabhishek078@gmail.com**.

[Verify email address](#)

Once verified, you can start using all of GitHub's features to explore, build, and share projects.

Button not working? Paste the following link into your browser: https://github.com/users/Abhishek-droid55/emails/150465089/confirm_verification/4234ddafb72531756a964fab9da81a88a704595c

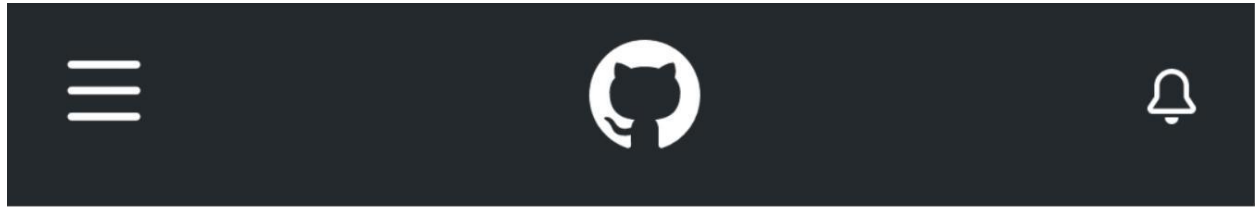
You're receiving this email because you recently created a new GitHub account or added a new email address. If this wasn't you, please ignore this email.

B) Creating Repository :

Click the new repository button in the top-right. You'll have an option there to initialize the repository with a README file, but I don't.

Click create repository.


Congratulations! You've successfully created your first repository, and initialized it with a



Create a new repository

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

Owner *

 Abhishek-droid55 ▾ /

Repository name *

Project ✓

Great repository names are short and memorable.
Need inspiration? How about **redesigned-fiesta**?

README file.

On the Edit file tab, type some information about yourself.



github.com/Abhishek-d



Abhishek-droid55 / **Project**

Private

Code

Issues

Pull requests

Actions

Project /

README.md


<> **Edit file**

👁 Preview changes

```
# Project
<head>
  <title> Form validation </title>
<script type="text/javascript">
function validate() {
  if (document.myForm.Name.value == "") {
    alert("please provide your name! ");
    document.myForm.Name.focus();
    return false;
  }
  if (document.myForm.Email.value == "") {
    alert("please provide your name! ");
    document.myForm.Name.focus();
    return false;
  }
}
```

Above the new content, click Preview changes.

Now you can see your code

 Abhishek-droid55 / Project Private Unwatch 1 Star 0 Fork 0

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

Project / README.md Cancel

[Edit file](#) [Preview changes](#)

Project

<title> Form validation </title> <script type="text/javascript"> function validate() { if (document.myForm.Name.value == "") { alert("please provide your name! "); document.myForm.Name.focus(); return false; } if (document.myForm.Email.value == "") { alert("please provide your name! "); document.myForm.Name.focus(); return false; } <title>Form Validation</title> <script type = "text/javascript"> </script>

```
<tr>
  <td align = "right">Name</td>
  <td><input type = "text" name = "Name" /></td>
</tr>

<tr>
  <td align = "right">EMail</td>
  <td><input type = "text" name = "EMail" /></td>
</tr>

<tr>
  <td align = "right">Zip Code</td>
  <td><input type = "text" name = "Zip" /></td>
</tr>

<tr>
  <td align = "right">Country</td>
  <td>
    <select name = "Country">
      <option value = "-1" selected>[choose yours]</option>
      <option value = "1">USA</option>
      <option value = "2">UK</option>
      <option value = "3">INDIA</option>
    </select>
  </td>
</tr>

<tr>
  <td align = "right"></td>
  <td><input type = "submit" value = "Submit" /></td>
</tr>

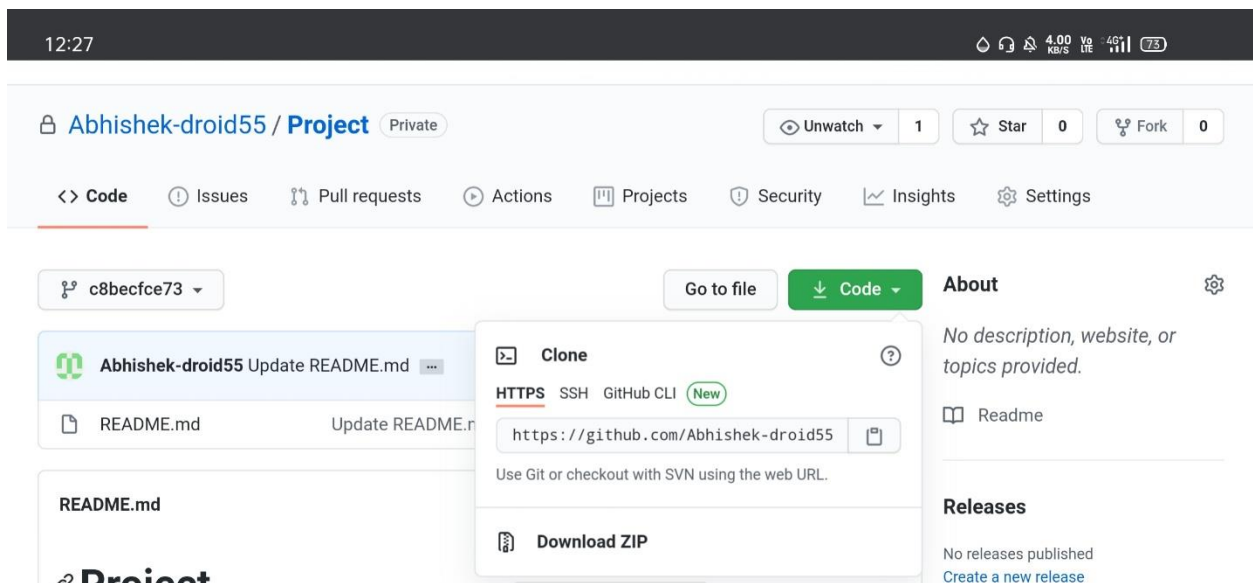
</table>
</form>
```


At the bottom of the page, type a short, meaningful commit Message that describes the change you made to the file. You Can attribute the commit to more than one author in the Commit message.

You have now created a repository, including a README file, And created your first commit on GitHub.

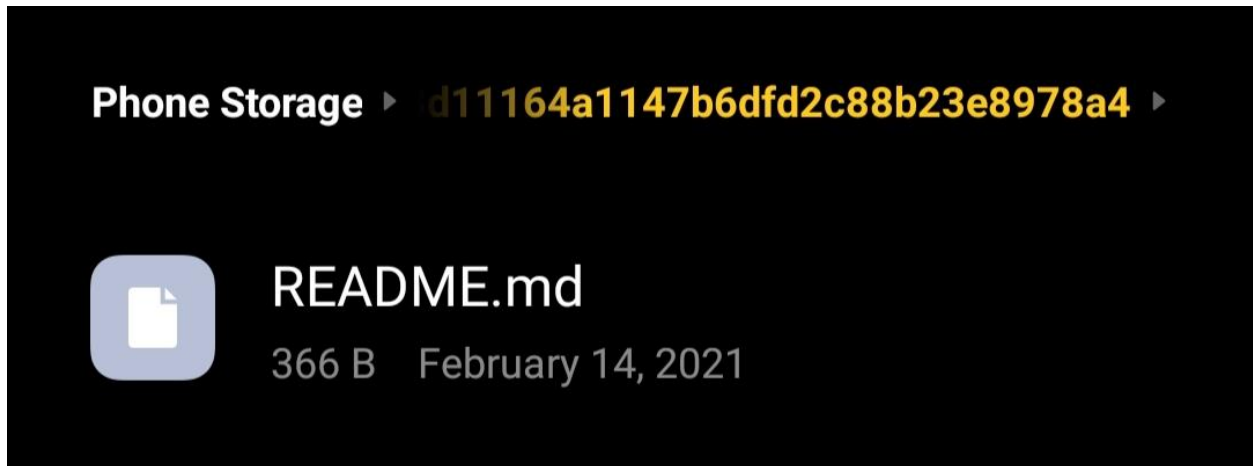
C) cloning repository

On the right side of the screen, below the “Contributors” tab, you’ll See a green button that says “Clone or Download.” Go ahead and click That. In the window that appears, select the “Clipboard” icon to copy The repo URL to your clipboard.



You can see here that the “Project” repo

Was successfully cloned to our “README.md” folder.



Now open the file and check out Form validation code and output
Now you can start making edits to the directory using your favorite
Text editor!

Name	<input type="text"/>
E-Mail	<input type="text"/>
Zip Code	<input type="text"/>
Country	[choose yours] ▼
	<input type="submit" value="Submit"/>

Name: Abhishek Pal

Roll no: 55

FYIT

PRACTICAL 3:

BASIC UNDERSTANDING ON FREE AND OPEN- SOURCE SOFTWARE

a) Describe Open Source Software with Example.

Open source software (OOS) is software with source code that anyone can inspect, Modify and enhance.

The term open source refers to something people can modify and share because its design is publicly accessible. The term originated in the context of software development to designate a specific approach to creating computer programs.

“Source code” is the part of the software that most computer users don’t ever see; it’s the code computer programmers can manipulate to change how a piece of software (a “program” or “application”) works. Programmers who have access to a computer program’s source code can improve that program by adding features to it or fixing parts that don’t always work correctly.

Open source software is released through a specific kind of license that makes its source code legally available to end-users. The source code can be repurposed into other new software, meaning anyone can take source code and distribute their own program from it.

Below given are some examples of OPEN SOURCE SOFTWARE:

- 1.) Firefox – a web browser that competes with Internet Explorer
- 2.) OpenOffice – a competitor to Microsoft Office
- 3.) Gimp – a graphic tool with features found in Photoshop
- 4.) Zimbra – open source e-mail software that competes with Outlook server
- 5.) MySQL, Ingres and EnterpriseDB – open source database software packages that each go head-to-head with commercial products from Oracle, Microsoft, Sybase and IBM
- 6.) Free BSD and Sun’s OpenSolaris – open source version of Unix operating system

b) Describe Free Software with Example:

Free Software means software that respects users’ freedom and community. Free 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.

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.

We campaign for these freedoms because everyone deserves them. With these freedoms, the users control the program and what it does for them. When users don’t control the program, we call it a “nonfree” program. The nonfree program controls the users and the developer controls the program.

Today, free software covers just about every field of computer applications. 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.

A program is free software if the program’s users have the four essential freedoms:

- 1.) The freedom to run the program as you wish ,for any purpose.
- 2.) The freedom to study how the program works, and change it so it does your Computing as you wish. Access to the source is a precondition for this.
- 3.) The freedom to redistribute copies so you can help others.
- 4.) The freedom to distribute copies of your modified versions to other. By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition to this.

Below given are some examples of FREE SOFTWARE:

- 1.) The Linux kernel – 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
- 2.) 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
- 3.)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
- 4.)PostgreSQL is an object-relational database. It is currently the most sophisticated free software database available

c) Difference between Free Software and Open Source Software:

S.No.	Free Software	Open Source Software
1.	<p>“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. The term “free software” is sometimes misunderstood—it has nothing to do with price. It is about freedom</p>	<p>Open Source Software is something which you can modify as per your needs, share with others without any licensing violation burden. When we say Open Source, source code of software is available publicly with Open Source licenses like GNU (GPL) which allows you to edit source code and distribute</p>
2.	Software freedom translates to social freedom.	Ethics are to be associated to the people not to the software.
3.	Freedom is a value that is more important than any economical advantage.	Freedom is not an absolute concept. Freedom should be allowed, not imposed
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.	Examples: Prime examples of open-source products are the Apache HTTP Server, the e-commerce platform osCommerce, internet browsers Mozilla Firefox and Chromium (the project where the vast majority of development of the freeware Google Chrome is done) and the full office suite LibreOffice.

Practical 4: Writing Email

Abhishek pal

FYIT

55

1. Set up and email address. If you do not have an email address you will need to sign up with an email provider before proceeding



Set up email



Google



Outlook, Hotmail, and Live



Yahoo











Exchange and Office 365

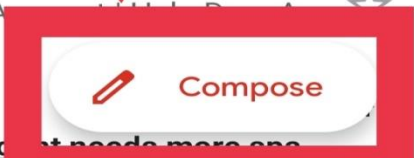


Other

2. Click on “compose” or “new”. Before you can write an email, you will need to open a new, blank message box to write your email.

PRIMARY

- **Social** 12 new
Goodreads, Twitter, Twitter
- **Promotions** 16 new
Top Picks
Quora Digest, GitHub, Flipkart, CodePen, GitHub,...
- SWEETY GARG (Classroom) 11:56 AM
Marked: "QUIZ2"
Dear 55_FYIT_Abhishek, SWEETY GA... ☆
- Paytm 11:32 AM
Win Up to ₹1 Crore! Make your India...
Play & Win on Paytm First Games. T&... ☆
- sweety 10:26 AM
Score released: DBMSI QUIZ2
Your score has been released for DB... ☆
- Quora Digest Mar 8
How can an IT fresher with 3.2 LPA a...
Answer: I was in a similar situation a... ☆
- oracle-acct_ww Mar 8
You recently visited your Oracle Acco...
Subscribe | My Account | Help | Feedback ☆
- MEGA
Your MEGA account needs more space



- List the recipients email address. You do not need to list your own email address, but you do need to specify the email address of the person or people u intend to send the email to



Compose



From palabhishek078@gmail.com



To



ombudsman@airtel.in



4. Include an informative subject. Every email service will let you type a subject or title for your email in the “subject” box.



Compose



From palabhishek078@gmail.com



To



ombudsman@airtel.in



Complaint regarding poor internet connectivity |

5. Write the body of your email. The body of your email should be written in the large text box

Respected sir

With due respect I am writing this email to inform you that my internet connectivity is very poor and I am not able to attend my lectures from past 4-5 days. I am facing trouble as my exams are near and my most of the work is done via online mode and for that I need a proper internet connection.

I hope you'll look into this matter and do the needful at the earliest to fix the internet connectivity problem as soon as possible.

below the subject line

6. Hit The "send" button. After you finish typing your email review it to verify that there are no spelling or grammar mistakes and that the issue clearly addresses the matter you wanted to bring up



Compose



From palabhishek078@gmail.com



To



ombudsman@airtel.in



Complaint regarding poor internet connectivity

Respected sir

With due respect I am writing this email to inform you that my internet connectivity is very poor and I am not able to attend my lectures from past 4-5 days. I am facing trouble as my exams are near and my most of the work is done via online mode and for that I need a proper internet connection.

I hope you'll look into this matter and do the needful at the earliest to fix the internet connectivity problem as soon as possible.

Practical 5

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

Ans: Green computing is the environmentally responsible and eco-friendly use of computers and their resources. It is also defined as the study of designing, engineering, manufacturing, using and disposing of computing devices in a way that reduces their environmental impact. Green computing aims to attain economic viability and improve the way computing devices are used. Green IT practices include the development of environmentally sustainable production practices, energy-efficient computers and improved disposal and recycling procedures.

Steps to contribute to green computing:

1. Purchase energy-saving hardware:

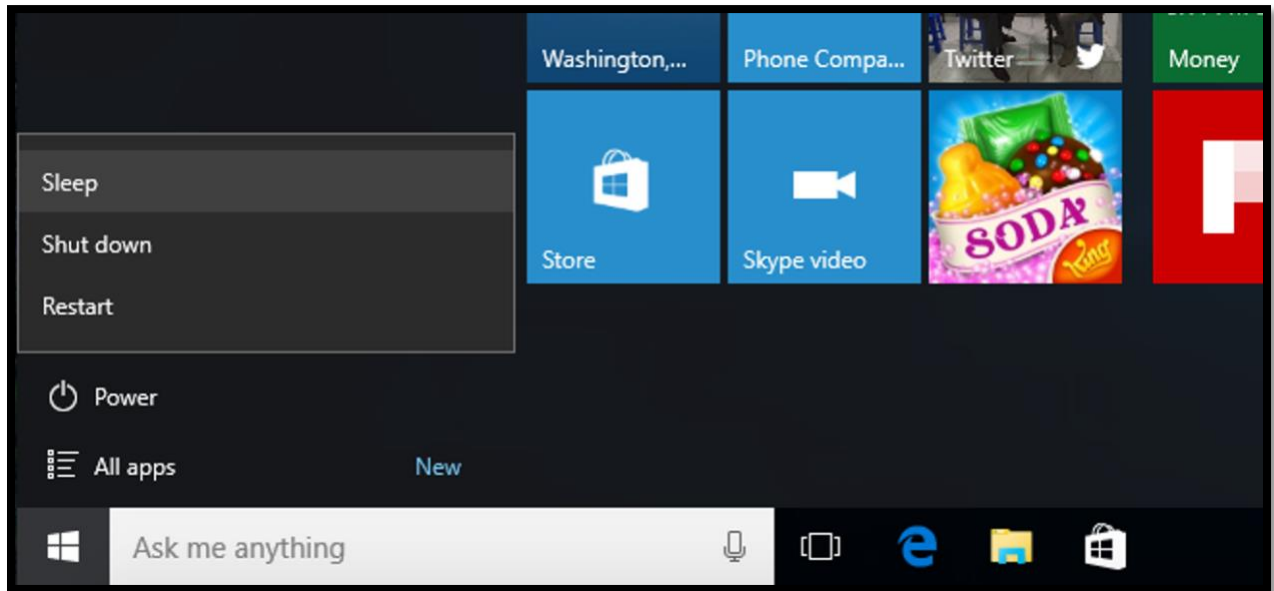


Purchasing energy-saving power supply units can save money, help the environment and they are often quieter.

Considering energy efficient products is a good way to save energy in the first place. Look for logos like the Energy Star to buy computer hardware that offers good energy efficiency. Another good idea is to look for an 80+ power supply unit which is more energy efficient as well.

You may also save energy when you buy components designed for mobile use, or components that come with extra energy saving features.

2. Power down computers while not using:



Many of us leave our computers running even when we are not using them, this leads to waste of energy. if you do not want o switch them off completely use sleep mode or hibernate, this will help save the power and keep it to its current state to use it when needed.

Many more reasons to shut down the device when not in use:

- You're in public or on an unsecured network.
- Slightly saves on your electricity or power bill.
- You don't want to be disturbed by notifications, fan noise, or blue light.
- Slow the wear of components, like the cooling fan and hard disk.
- Your house sensitive data concerned about the cyber risk of an open connection.
- Perceive value in the charge cycle of your battery.

Leaving your computer on does little damage to modern computers. However, when the computer is on, the fan is working to cool the machine's components. When it's running consistently, it will shorten the lifespan slightly. Additionally, external incidents like dropping the device or unexpected power surges while the computer is on can cause significant hardware damage or preventable data loss.

3. Use a laptop instead of a desktop:



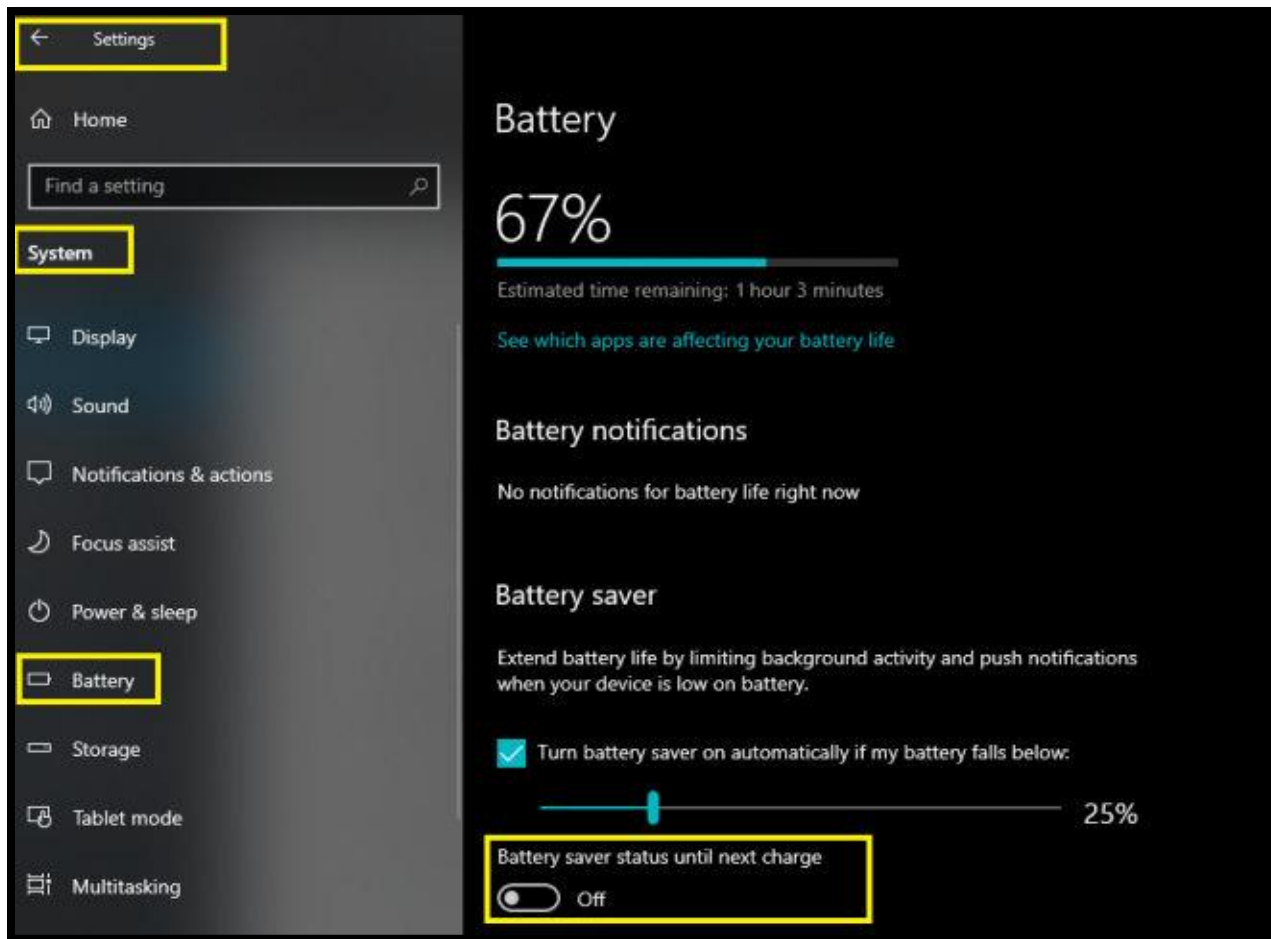
Laptops are environmentally friendly because they have components that do not require a lot of power. Use a laptop as much as you can.

A. Desktop computers use an average of 60 to 200 watts of electricity in order to run normally.

B. An uninterruptible power supply can significantly increase energy usage of your desktop model, but it's necessary in order to prevent system crashes and other significant issues during power outages.

C. Laptops use an average of 20 to 50 watts of electricity. This amount can be reduced by putting laptops in power save mode, where energy is used more efficiently. Power save mode may include a dimmer screen, decreased functions and other measures that help save electricity.

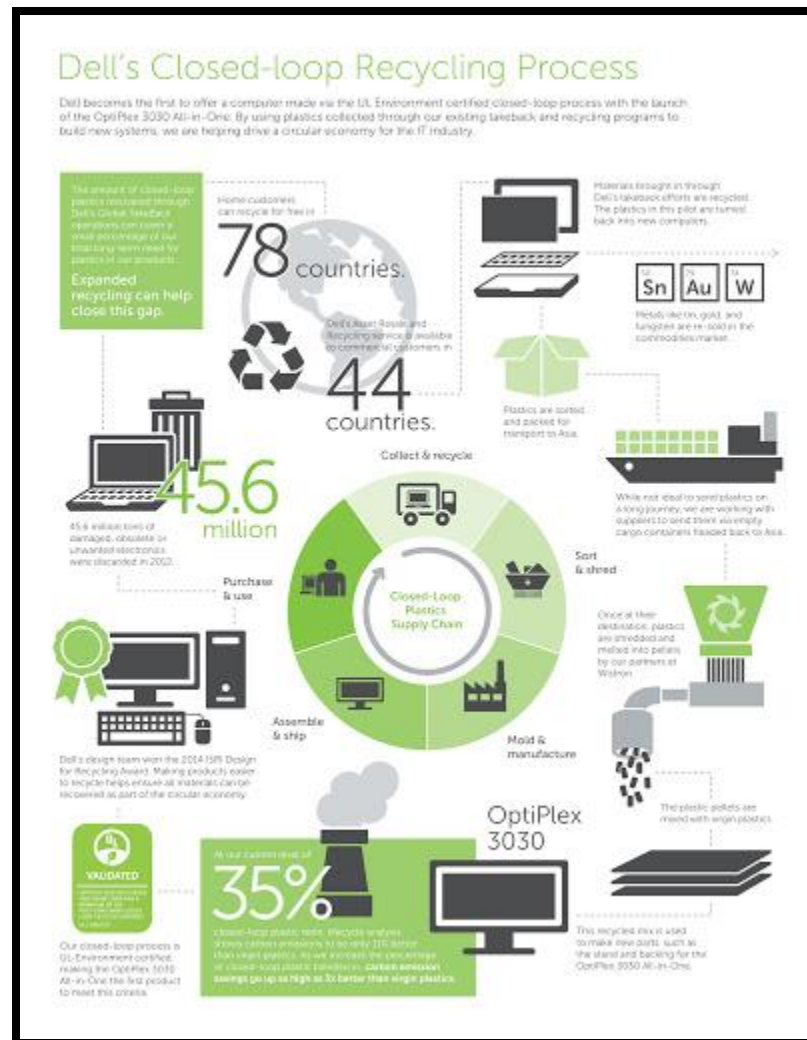
4. Use power-saving features:



These features in a computer can command the computer to do various energy-saving tasks automatically, therefore saving a lot of power.

- 1) It changes Device's brightness to standard brightness or changes it to automatic brightness.
- 2) It stops unused apps on your device.
- 3) It reduces the device's screen out time.
- 4) It will notify you to turn off your Bluetooth, Wi-Fi , GPS etc because they increase battery consumption .
- 5) It will notify you to turn on smart stay if you have it in your device because it saves battery .

5. Recycle responsibly:



You should check with your authority to see which companies can safely dispose of old computer parts, this because computers have hazardous particles which affect the environment.

A. Reduce: We are using more and more devices and replacing them more often. Changing this habit depends as much on the consumer — who should be less susceptible to marketing strategies that encourage consumption — as on manufacturers who are increasingly adopting policies like ecodesign.

B. Reuse: The experts in electronic recycling recommend that friends or family inherit devices that still work, or that they be offered on the second hand market. There is also the possibility of donating them to specialized charities.

C. Recycle: When the item no longer works and there is no chance of it being used by someone close, recycling should be the option. One option for the consumer is to hand the old device in to the shop where the new one is being purchased, or to some company that specializes in electronic refurbishment.



LEED

Leadership in Energy and
Environmental Design



Group no:-12

- Abdullah Sunasara 108
- Raghavendra Rao 69
- Dwiti Joshi 31
- Prit modi 47
- Aditya sahu 70
- Abhishek pal 55
- Saqeeb Ballari 113
- Punit maru 39
- Jay dave 129
- Vidhi Patel 61

What is Leed?

- LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world. Available for virtually all building types, LEED provides a framework for healthy, highly efficient, and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement and leadership.
- A way to define and measure “green buildings”:
- Categorized into building/project types
- New Construction.
- Existing Buildings.
- Commercial Interiors.
- Core and Shell.
- LEED for Homes.
- Neighborhood Development

LEED Rating System

- Seven Categories with slightly different requirements.
- Point allocation based on project type/ rating system:
- Sustainable Sites.
- Indoor Environmental Quality.
- Energy and Atmosphere.
- Materials and Resources.
- Innovation and Design.
- Water Efficiency.

Sustainable Sites

- The **Sustainable Sites** (SS) category is about making decisions based on having less impact to the environment

Sustainable Site Planning Topics to Cover

- Site Selection
- Site/Building Layout
- Impervious Surfaces
- Grading Considerations
- Stormwater Management
- Landscape Design

Points to be Avoided :-

- Prime farmland
- Previously undeveloped land with an elevation lower than 5 feet above the elevation of the 100-year flood as defined by the Emergency Management Agency;
- Land identified as habitat for any species or state threatened or endangered list
- land within 100 feet of any wetlands
- Previously undeveloped land within 50 feet of a body of water which supports or could support fish, recreation
- Land which was public parkland.

Indoor Environmental Quality (IEQ)

- Indoor environmental quality (**IEQ**) refers to the quality of a building's environment in relation to the health and wellbeing of those who occupy space within it. **IEQ** is determined by many factors, including lighting, air quality, and damp conditions.
- IEQ is determined by many factors, including lighting, air quality, and other condition

Critical Components

- Indoor air quality — odors, indoor air pollution, fresh air supply,...
- Thermal comfort or indoor climate —Temperature, moisture, air velocity
- Visual or lighting quality —View, illuminance, luminance ratios, reflection,...
- Acoustical quality —Outside and indoor noise and vibrations

Energy and Atmosphere

- Improving energy efficiency is one of the easiest ways to save money and improve the sustainability of a building. Therefore almost a third of the points available in LEED are found in this category. Projects can earn these points by making the building more efficient than a code baseline building of similar size and shape, commissioning the building systems, and adding renewable power sources to the project.

Materials & Resources

- Did You Know? The most sustainable thing we can do is not build since a typical 1,700 square foot wood framed home requires the equivalent of clear cutting one acre of forest "Reuse of existing buildings is one of the most effective strategies for minimizing environmental impacts" since it adds less garbage to landfills. Construction and demolition waste streams constitute 40% of total waste in U.S. Use of local reused material reduces transportation waste

Materials & Resources

- A LEED Materials and Resources Points earned for:
 1. Storage & Collection of Recyclables.
 2. Construction Waste Management, Divert 50% from Disposal.
 3. Choosing Materials with a minimum 10% Recycled Content.
 4. Choosing FSC Certified Wood.

Innovation and design

- Instead of creating a new product and then "selling" it the public, innovative design is a process of identifying, pinpointing, and understanding the needs of the user or audience.
- Design Innovation, as you can infer, is a process used to create innovation. It focuses on addressing people's needs with what is technologically feasible and devising a viable business strategy to derive value from this market opportunity.

Water Efficiency

Did You Know?

Everyday 4 of nations total supply of water is used with 65% discharged treated or untreated in rivers, streams and lakes.

" U.S. extracts 3,700 billion gallons from the aquifer more than they return.

a LEED Water Efficiency Points earned for:

- Water efficient Landscaping
- Minimizing or utilizing Wastewater
- Other water efficient features
- Low-flow shower heads

Water Efficiency

WE Credit 3.1: Water Use Reduction: 20% Reduction

Maximize water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.

Requirements

Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures (as applicable to the building): water closets, urinals, lavatory faucets, showers and kitchen sinks.

LEED Basics

- Must commit to sharing whole-building energy and water usage data
 - for a period of at least 5 years
 - in a free, accessible, and secure online tool or, if necessary, taking any action to authorize the collection of information directly from service or utility must carry forward if the building or space changes ownership or lesser providers

LEED Basics

2009 Minimum Program Requirements

1. Must comply with environmental laws
2. Must be a complete, permanent building or space
3. Must use a reasonable site boundary
4. Must comply with minimum floor area requirements
5. Must comply with minimum occupancy rates
6. Must commit to sharing whole-building energy and water usage data
7. Must comply with a minimum building area to site area ratio

What is a “Green Building”

- A 'green' building is a building that, in its design, construction or operation, reduces or eliminates negative impacts, and can create positive impacts, on our climate and natural environment. Green buildings preserve precious natural resources and improve our quality of life.

Why go “Green”?

- Improves Your Health.
- Improves Air Quality.
- Slow down Climate Change.
- Reduces Carbon Emissions by Green Travel.

Why go “Green”?

- Reduces Carbon Footprint.
- Prevent Water Pollution.
- Increases Productivity.
- Sets an Example For Others.

GREEN GLOBES

- The Green Globe certification is a structured assessment of the sustainability performance of travel and tourism businesses and their supply chain partners. Businesses can monitor improvements and document achievements leading to certification of their enterprises' sustainable operation and management.

GREEN GLOBES

- Two Categories:
 - New Construction.
 - Continual Improvement of Existing Buildings.

GREEN GLOBES

- New Construction – 2 Stages
 - Stage I -- review of construction documents, working drawings, landscape designs, energy analysis, LCA documentation, commissioning reports, etc.
 - Stage II -- onsite walk through, review of additional documentation, and interview of key team members.

GREEN GLOBES

- Continual Improvement of Existing Buildings:
 - extensive documentation review and an on-site visit with a walk through and interview of facility manager and chief engineer.

Why Green in Interior Design?

- In all categories there are Prerequisites that must be met.
- LEED Leadership in energy and environmental design .
- Buildings consume 37% of total energy and 68% of the electricity consumed in the U.S..
- Each day 5 billion gallons of potable water is used to flush toilets
- Typical construction project generates 2.5 pounds of waste per square foot of floor space.
- Quality of Life improvements for building inhabitant so
- Client requests

Typical Client Motivation

- Attitudes: Care about the environment.
- Goals:- Reduce operating costs· Save on Energy, water, wasteEnhance Building Marketability
- Other Goals:- Increase worker productivity (Production gains up to 16%)Reduce absenteeism because of "Sick building syndrome"•
- Reduce liability / Increase loyalty LEED Leadership in energy and environmental

“Defining Success Together”

- Because of various standards and outcomes, it is important to work with client to understand just what client wants to achieve in undertaking a “green building” project.
- Green Building legal issues revolve around:
 - Identifying parties’ “values” and negotiating agreements that result in “wins”.
 - Allocating risks, benefits, burdens and responsibilities.
 - Anticipating and avoiding unnecessary trouble.

Is Green – Real or Just Marketing

- Because of various standards and outcomes, it is important to work with client to understand just what client wants to achieve in undertaking a “green building” project.

Is Green – Real or Just Marketing

- LEED not necessarily valued in marketplace
 - 2009 RICS Study: LEED rating did not statistically improve rents while Energy Star rating associated with rents higher by 3.3%