

IT PLATFORMS, TOOL AND PRACTISE



Q) Differentiate between open source and free source

Ans:- 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) freely available source also available.

5) Merge your feature idea into the app in a given release cycle.

free source -

1) Software is an important part of people's life.

2) Software freedom translates to social freedom

3) Freedom is a value that is more important than any economical advantage.

4) freely available but copyrighted

5) competitors have to build their versions from scratch.

6) Free distribution

6) Freedom to distribute copies of software

7) Integrity of authors source code

7) Freedom to modify improve program and reward improvement to public

8) User can modify or develop software as per his own need

8) Software requirement are finalized by organization itself

9) Huge no of individual are available quality and bug removal

9) Quality assurance and bug removal is done by small team

10) Example - prime examples of open-source products are the Apache HTTP server, the e-commerce Internet browser mozilla firefox and chromium.

10) Example - The free software Directory maintain a large database of free software packages. Some of the best-known examples include the Linux kernel, the BSD and Linux operating system.

Q Explain the significance of green computing

Ans The significance of green Technology and its approaches lie in lesser usage of IT services and corresponding increase in energy consumption and carbon emissions. This in turn has disastrous ramifications on the health and livelihood of people and environment. The energy demand of the IT sector is estimated to grow by 50 percent by 2030 and the consequent emission by 26 percent. In light of such development as nation around the globe embark on digital transitions, it becomes imperative to focus on a sustainable digital future. As technology integrates seamlessly into various aspects of life, research into green computing requires catering to the specific and disparate needs of each sector. Cloud computing cloud at a center (CAC) enables storage of large data through virtualization of physical resource. As a result, it increases efficiency in working remotely and owing to a year's worth of work, has increasingly contributed to pollution. In India, the government has spearheaded the mission with the launch of the green IT initiative under the Department of Electronic and Information Technology (DEITY) under the same, the department initiated into the development of technologies and suitable solution for smart Building



with low carbon emissions. To this effect it has partnered with centre of development of Advanced computing (CDAC) chennai, Bangalore for Development of ICT technologies for smart Building with low carbon emission and CDAC chennai, Bangalore, Hyderabad and Trivandrum for Design and Development of system and solution for smart cities using Internet of Things.

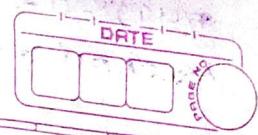
3) What is GitHub? Explain the advantages of using GitHub. Give steps of creating and cloning repository on GitHub.

Ans:- GitHub is a web-based interface that uses Git the open source version control software that lets multiple people make separate changes to web pages at the same time. As carpenter notes, because it allows for real-time collaboration, GitHub encourages teams to work together to build and edit their site content.

The advantage of GitHub are :-

1) It's free and it is open source:-

As discussed earlier, GitHub is completely free and you can use it without paying and since it is an open source you can download the source code and can make changes as per the requirement.



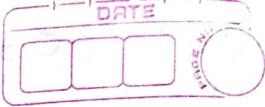
- 2) It is fast - Since most of the operations are preferred locally, it allows huge benefit in terms of speed.
- 3) It provides good backup - chance of losing data is very low as it provides the multiple copies of it. It has the best interface to its content on a single project at a time from different locations.

STEPS TO CREATE repository

- 1) In the upper-right corner of any page, use the drop-down menu, and select New repository.
- 2) Type a short, memorable name for your repository.
- 3) Optionally, add a description of your repository.
- 4) choose a repository visibility.
- 5) Select Initialize this repository with a README.
- 6) Click Create repository.

STEPS TO CLONE repository -

- 1) From the repository, click + in the global sidebar and select clone this repository under Get to work.
- 2) Copy the clone command.
- 3) From a terminal window, change to the local directory where you want to clone your repository.



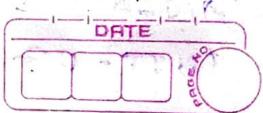
4) Differentiate between Tools and Technologies

Tool

- 1) Tool are software development tools that are set of programs.
- 2) Used to create and maintain software or applications by developers.
- 3) Tool is piece of software used to create or develop software or hardware.
- 4) It is used to perform low-level operation.
- 5) Features of software tool includes program analyzer, simulators, flow analyzer, etc.
- 6) Benefit of tools include increases productivity, web development, mate development simpler and easier etc.
- 7) Tools are extensions of our hands as much as the hammers.

Technology

- 1) Technology is simply a type of tool produced by people.
- 2) Use to solve specific problems, aims at meeting human requirement.
- 3) Technology are thing developed to solve specific problems.
- 4) It. is used in production of goods or service to accomplish objective.
- 5) Features of technology includes creative and critical thinking work functional & practical way.
- 6) Benefits of tech include creative and critical thinking, works further E-pro techniques etc.
- 7) Technology are system imposed by organization that constraint and depersonalized knowledge.



8) Which will help you to do a thing is tool.

9) Eg. Broadcasting & receiving antenna, transmitter etc. are tools.

10) Eg. GitHub, Google chrome etc.

8) How to do a thing answer is technology.

9) Gladio is a technology

10) Smartphones, tablet computer etc.

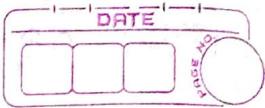
5) Explain the feature and working of any tools used in online Teaching and Learning process.

Ans. GOOGLE MEET

What is Google Meet? Google Meet is a video communication service developed by Google. It is one of two apps that constitute the replacement for Google Hangout the other being Google Chat.

FEATURES:-

- 1) Unlimited numbers of meeting.
 - 2) live captioning during meeting
 - 3) compatible across devices
 - 4) video and audio preview screen
 - 5) Adjustable layout and screen settings
 - 6) controls for meeting hosts
 - 7) screen sharing with participants
 - 8) Messaging with participant and many more
- Working :-



On both the meet mobile app and on a computer, simply pull up google meet and click or tap "use a meeting code" if it may enter a meeting code on mobile. Once your code is in, provided the session has started you'll enter the call and can begin talking with your team.

FOR EDUCATION

Education can create a unique Meet link for each class, which is displayed on the classroom stream and classroom pages. These work act as a dedicated meeting space for each class, making it easy for both teachers and student to join.

The meet links created by the classroom integration and nicknamed meeting for education users; participants can't rejoin nicknamed meeting once the final participant has left, unless they have meeting creation privileges to start a new meeting. This means if the instructor is the last person to leave a nicknamed meeting students can't join until an instructor restart the nicknamed meeting.