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IT-Tools Assignment

1. Explain Green Computing with its advantages?

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

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

Advantages of Green Computing:

1) Green computing technique reduces the energy consumption which results into low carbon dioxide emission.

2) By using green computing techniques, we can also save money that was spent in extra usage of energy and resources.

3) Green computing also applies changing government policy to encourage recycling. 4) Green computing also removes the risk which is existing in the laptop such as chemical known to cause cancer or nerve damage etc.

2. What is E-waste? What can be done to reduce the impact of E-waste?

Ans: Electronic waste or e-waste describes discarded electrical or electronic devices. Used electronics which are destined for refurbishment, reuse, rescale, salvage recycling through material recovery, or disposal are also considered e-waste.

Extend the life of your electronics: Buy a case, keep your device clean, and avoid overcharging the battery. Buy environmentally friendly electronics: Look for products labeled Energy Star or certified by the Electronics Product Environmental Assessment Tool (EPEAT).

Donate used electronics to social programs: Help victims of domestic violence, children safety initiatives, environmental causes, and more. Ask your student REP for a postage paid mailer for your cell phone or ink cartridge. For each item received, the World Wildlife Fund will receive one dollar.

Reuse large electronics: Recycle electronics and batteries in e-waste recycling bins located around campus. Large electronics can go in the larger bins found in your building.

3. What are the benefits of going paperless?

Ans: 1. Document organization:
The ability to quickly locate and disseminate information may enhance your company's efficiency and professional image. Spending time hunting through piles of paper slows down response time in an age when most answers are only a few keystrokes away. By scanning electronic copies of receipts and invoices, document can be sorted, filed, and organized for quick retrieval when it matters most.
2. Client communication is faster and less expensive:
By maintaining a customer email list, you can instantaneously communicate sales and special offers without incurring postage and printing expenses. With the advanced technology of smart devices, most people have immediate access to emails. While it increases efficiency, electronic communication also decreases storage costs as the amount of paper copies littering your office will begin to dwindle.
3. Paperless files are easily saved and retrieved on the go:
With the advent of photo-scanning apps, business travelers can easily back up expense reports without needing to save a pile of papers to bring back to the office. Electronic files can also be shared with coworkers over a network or via email.
4. Automatic backups:
When you accidentally throw out an important paper, it's usually gone forever. However, maintaining electronic files allows for multiple backup points. Data can be saved on flash drives, in the cloud, or to an external hard drive. For vitally important financial data, cloud based.
accounting systems provide automatic backups on a pre-scheduled basis, which eliminates the need for small business owners to set aside time for manual backups.
5. Data security:
Customers will always be concerned about privacy and data protection, which requires companies to respond by implementing proper data security procedures beyond locked filing cabinets and paper shredders. Many of today's cloud-based accounting systems offer bank level data security to protect financial and customer information.
6. Environmental friendliness:
According to the Environmental Paper Network's most recent State of the Paper Industry report, paper usage in North America is decreasing while the amount of paper recovered for recycling is increasing. Companies are striving to recycle, yet office copy paper alone still accounts for over 20 percent of the total paper usage in the United States. But being green is more than just reducing paper production.

4. What is GitHub? Give advantages of using GitHub.

Ans: GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management (SCM) functionality of Git, plus its own features Free GitHub accounts are commonly used to host open-source projects.

1. It makes it easy to contribute to your open-source projects:
To be honest, nearly every open-source project uses GitHub to manage their project. Using GitHub is free if your project is open source and includes a wiki and issue tracker that makes it easy to include more in-depth documentation and get feedback about your project. If you want to contribute, you just fork a project, make your changes and then send them a pull request using GitHub web interface.

2. Documentation:
By using GitHub, you make it easier to get excellent documentation. Their help section and guides have articles for nearly any topic related to git that you can think of.

3. Showcase your work:
Are you a developer and wishes to attract recruiters? GitHub is the best tool you can rely on for this. Today, when searching for new recruits for their project, most companies look into the GitHub profiles. If your profile is available, you will have a higher chance of being recruited even if you are not from a great university or college.

4. Markdown:
Markdown allows you to use a simple text editor to write formatted documents. GitHub has revolutionized writing by channeling everything through Markdown: from the issue tracker, user comments, everything. With so many other programming languages to learn for setting up projects, it's really a big benefit to have your content inputted in a format without having to learn yet another system.

5. GitHub is a repository:
This was already mentioned before, but it's important to note, GitHub is a repository. What this means that it allows your work to get out there in front of the public. Moreover, GitHub is one of the largest coding communities around right now, so it's wide exposure for your project.

6. Integration options:
GitHub can integrate with common platforms such as Amazon and Google Cloud, services such as Code Climate to track your feedback, and can highlight syntax in over 200 different programming languages.

5. Write a program using PEP8 rules.

Ans: PEP-8 is a acronym for Python Enhancement Protocol 8, which is a set guidelines publish for python programming language. PEP-8 guidelines may seem pedantic but following them can improve your code especially when it comes to sharing your code, whether it is your potential employer or open-source contributor or during group projects. PEP-8 stands for Python Enhancement Protocol, and there are several types of them. A PEP is a document that describes new Features proposed for Python and documents aspects of Python, like design and style, for the community.

Be consistent with your return statements. Either all return statements in a function should return an expression or none of them should. Also, if a return statement is not returning any value, return None instead of nothing at all.

```python
# Wrong
def sample(x):
    if x > 0:
        return x+1
    elif x == 0:
        return
    else:
        return x-1

# Correct
def sample(x):
    if x > 0:
        return x+1
    elif x == 0:
        return None
    else:
        return x-1
```