

## **ASSIGNMENT**

### **1) Explain Green Computing with its advantages.**

**ANS :-** 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, engineering, manufacturing, using and disposing of computing devices in a way that reduces their environmental impact.

### **ADVANTAGES OF GREEN COMPUTING ARE AS FOLLOW:-**

#### **1. Energy Savings**

Apart from computers, there are different kinds of electrical appliances that consume significant amount of energy. This creates a demand for the energy production. Therefore, it is necessary to decrease this energy crisis as much as possible for making a more eco-friendly environment. Green computing makes sure that very less amount of energy is consumed by the IT processes. Thus, this can save plenty amount of energy overtime.

#### **2. Cost Savings**

Green computing is highly cost effective that helps people save money. Since lots of energies are saved when using a green computing solution, it also substantially leads to financial gains. Even though green computing is with high upfront costs, still it is cost effective in the long run.

#### **3. Recycling Process**

Green computing encourages recycling process by reusing and recycling electronic wastes. Most parts of the computer are constructed using eco-friendly materials instead of plastic so that it can have less environmental impacts. This makes all the electronic wastes to get separated efficiently. Hence by implementing green computing strategies, companies overall can improve their recycling process.

#### **4. Brand Strengthen**

Some customers are so well concerned about the environment that they are solely preferring to go with companies that support green computing. Green computing is capable of creating public images so that they can strengthen their brand and market position all around the world.

## **5. Less Pollution**

Through conventional computing, lots of pollution issues take place in the environment. For an example, if not properly recycled all the electronic wastes from the computer may end up circulating on land. Thus, leading to soil as well as water pollution. By using green computing, the users can minimize the impact created by pollution at least to some extent.

## **6. GHG Emission**

During the production of IT hardware, tremendous amount of green house gases are released to the atmosphere. Especially, since harmful gases such as carbon dioxide are emitted, it could lead to global warming. Hence, for lowering the amount of green house gases emitted, the production of hardware components must be reduced as well. This is how green computing works effectively.

## **7. Chemical Exposure**

In most of the electronic devices, harmful chemicals such as mercury is used. If a human happens to get contacted with those substances, he/she will probably suffer from health risks. Some of the known health risks are triggering of immune responses, nerve damage or even cancer. The companies which practice green computing potentially avoid the use of non-toxic substances during the production of computer hardware.

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

**ANS :-** E-waste is any electrical or electronic equipment that's been discarded. This includes working and broken items that are thrown in the garbage or donated to a charity reseller like Goodwill. Often, if the item goes unsold in the store, it will be thrown away. E-waste is particularly dangerous due to toxic chemicals that naturally leach from the metals inside when buried.

**HERE ARE SOME WAYS TO REDUCE THE IMPACT OF E-WASTE ARE AS FOLLOW:-**

**1. Re-evaluate.**

**2. Extend the life of your electronics:** Buy a case, keep your device clean, and avoid overcharging the battery.

- 3. Buy environmentally friendly electronics:** Look for products labeled Energy Star or certified by the Electronic Product Environmental Assessment Tool (EPEAT).
- 4. Donate used electronics to social programs**—and 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.
- 5. Reuse large electronics.**
- 6. 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:- THE BENEFITS OF GOING PAPERLESS ARE FOLLOW:-**

#### **1. Saves Time**

Time spent filing, organizing, and searching for paper documents is time that could be spent on more productive tasks. Digitized documents are stored in a central repository, which is basically a well-organized digital filing cabinet where all of your documents live.

Using a digital document management system you'll get to harness the same powerful search abilities that you're used to using on Google. This means employees can find files at the click of a button, much more quickly than the laborious, manual process of searching for a specific file in a buried folder. **Employees are able to use this extra time on revenue-generating projects.**

#### **2. Saves Space**

Paper takes up a lot of space – as do filing cabinets and space to store those filing cabinets. Books and bookshelves are bulky, too. What's worse, paper keeps piling up, oftentimes accumulating more quickly than it can be sorted and organized. This is particularly true of industries that have long mandatory retention periods for paperwork like the financial industry.

Digitizing files allows you to store all documents either on an on-premises server or in the cloud. Digital file folders in a repository require much less space than a physical records archive.

### **3. Saves Money**

Going digital improves process efficiency, saving you money. Paperless offices can process a much larger volume of paperwork compared to traditional offices in the same amount of time.

Further, digitization reduces money spent on paper, printers, ink, postage, office space for files and employee time to manage paperwork. The savings on employee time become especially valuable in regards to regulatory audits and repetitive, high-volume tasks like expense reimbursements.

### **4. Eases Transfer of Information**

Document management software offers a simple process for saving documents. The software easily compiles digital documents using scanners, mobile captures using a camera on a phone or tablet or importing any file type (.docx, .pdf, image files). Many commonly used applications, like Microsoft Office and Adobe Acrobat, integrate with document management systems and have native plugins which allow you to file your document into your content management system with just one click.

### **5. Promotes the Environment**

Manufacturing paper products produce greenhouse gases, causing deforestation and global warming. Recycling can offset some of the environmental impact, but not by much. Most paper eventually ends up in a landfill. Further, ink and toners contain volatile compounds and non-renewable substances which are damaging to the environment. It is much more sustainable to simply reduce paper use altogether by switching to a paperless office.

### **6. Boosts Security**

Physical documents are hard to track – reams of paper can get lost, misfiled or destroyed without anyone noticing. It can also be difficult to monitor the access, printing and copying of sensitive files. Document management software has advanced security capabilities that can tackle these challenges. System administrators can set-up granular access rights, which assign permissions at the document level (e.g. settings based on the type of document), user level (e.g. settings based on person's job function), or system level (e.g. overarching security for all data in the system).

## **4) What is Github? Give advantages of using Github.**

**ANS:-** Github is a hosting platform wherein developers can store their computer code in the github server in files and folders called repository and track them continuously. It is an open-source version control and collaboration platform for program developers. It helps all the programmers to collaborate with each other who are working on a similar project and also share their code easily as and when required.

The collection of these files will show the source code of a program which is spread across the files to make it easier to manage what can be many thousands of lines of code and still be able to find the parts you need to find.

## **THE ADVANTAGES OF GITHUB ARE AS FOLLOW:-**

### **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 requirements.

### **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:**

Here chance of losing data is very low as it provides the multiple copies of it.

### **4. Multiple developers can work:**

Github allows multiple developers to work on a single project at a time. It helps all the team members to work together on a single project at a time from different locations.

### **5. Conclusion:**

Once you know the usage of github repository you can go ahead and start using it. It has the best interface to its concepts and is a solid base to work from. Github is the most preferred platform of developers especially whenever the developers are working on a single project from different locations.

## **5) Write a program using PEP8 rules.**

**ANS:-**

```
>>> # Recommended
```

```
>>> name = 'Dev Sanghvi'
```

```
>>> first_name, last_name = name.split()
```

```
>>> print(last_name, first_name, sep=', ')
```

```
'Sanghvi, Dev'
```