Name – Rohit ghadge

FY-IT Roll no- 12

IT tools assignment

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

Ans -: ***introduction-****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, manufacturing/engineering, using and disposing of computing devices in a way that reduces their environmental impact. Many IT manufacturers and vendors are continuously investing in designing energy-efficient computing devices, reducing the use of dangerous materials and encouraging the recyclability of digital devices. Green computing practices came into prominence in 1992, when the Environmental Protection Agency (EPA) launched the Energy Star program.Green computing is also known as green information technology (green IT).*

Advantage of green computing-

- ***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.

- ***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.

- ***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.

- ***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.

- ***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.

- ***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.

- ***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- Electronic waste or e-waste describes discarded electrical or electronic devices. Used electronics which are destined for refurbishment, reuse, resale, salvage recycling through material recovery, or disposal are also considered e-waste. Informal processing of e-waste in developing countries can lead to adverse human health effects and environmental pollution. Electronic scrap components, such as CPUs, contain potentially harmful materials such as lead, cadmium, beryllium, or brominated flame retardants. Recycling and disposal of e-waste may involve significant risk to health of workers and their communities*

10 Ways to Reduce E-Waste

- *Donate or Sell Working ElectroE-Waste.*
- *Consume Less in Order to Reduce Your **E**-Waste.*
- *Use Your Old Mobile Phone as a GPS Device.*
- *Recycle via a Retailer.*
- *Check **E**-Cycling Centers in Your Retaile.*
- *Organize Your Electronics.*
- *Know Your State's Laws About Battery Disposal.*
- *Store Your Data Online.*

3. **What are the benefits of going paperless.**

Ans-: Although the total elimination of paper may not be feasible for every business, even a small reduction may yield cost savings and increased efficiency. It doesn't matter if your company is in the startup phase or has developed well-established policies and procedures, there are always advantages to reducing paper usage. Here are seven reasons why going paperless may be beneficial for your small business.

Benifits of going paper less-

- **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, documents can be sorted, filed, and organized for quick retrieval when it matters most

- **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.

- **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. Shifting to paperless documentation also makes the transportation of data more efficient, without the need for cumbersome fax machines or document couriers.

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

Ans- **GitHub** is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere. This tutorial teaches you**GitHub** essentials like repositories, branches, commits, and Pull Requests.

what are the main benefits of using GitHub?

- 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. ...
- Documentation.
- Showcase your work.
- Markdown
- GitHub is a repository.
- Track changes in your code across vrepositor.
- Integration options.

5. Write a program using PEP8 rules

Ans-:. PEP-8 is an acronym for Python Enhancement Protocol 8, which is a set of guidelines published for the 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 contribution or during group projects. And writing

clear, readable code is also a sign of professionalism, and shows that you know how to structure your code.Let’s see why conventions are important in coding using code examples

```
from collections import defaultdict
```

PEP stands for Python Enhancement Proposal, and there are several 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.

This tutorial outlines the key guidelines laid out in PEP 8. It’s aimed at beginner to intermediate programmers, and as such I have not covered some of the most advanced topics. You can learn about these by reading the full PEP 8documentation.

```
def ltd(l):


    """Convert list to DefaultDict"""


        d = defaultdict(int)


        for i in l:


            d[i] += 1


        return d


print(ltd(L))
L = [1, 2, 3, 4, 2, 4, 1, 2]


from collections import defaultdict
# Helper Function


def ltd(l):


    """Convert list to DefaultDict"""
```

```
d = defaultdict(int)

for i in l:

    d[i] += 1
```