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IT TOOLS ASSIGNMENT 1

1. Explain Green Computing with its advantages.

Ans: -

- 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.

Advantages of Green Computing:

1. Sustainable computing means reduced energy consumption that leads to reduced GHG emissions and fossil fuel usage.
2. Green computing is cost-effective due to less energy usage & cooling requirements.
3. Sustainable IT helps in the preservation and effective utilization of natural resources.

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

Ans:- E-waste, or electronic waste, encompasses electrical and electronic equipment that's outdated, unwanted, or broken. That means everything from smartphones to end-of-life refrigerators. Basically, anything that runs on electricity that you've decided to get rid of. Globally, we only recycle 10% of our e-waste, a number that's as shocking as it is depressing. As for the 90% we don't recycle, it ends up getting landfilled, incinerated, or illegally traded.

Reduce: The easiest way to solve the e-waste crisis is to produce less e-waste. I know, easier said than done. Companies are constantly rolling out new products—like Apple, for instance, with its iPhone. Newer products look and function better than their predecessors, but novelty comes at a price. Instead of buying that flashy new gadget, stick to what you've got. Also, by taking care of your electronics you can ensure that they last longer. When you don't have to replace them as often, you end up saving money.

Reuse: Instead of tossing out that old television set or gaming console, consider re gifting, selling, or donating it. You could also hold on to it. Who knows, it might end up being worth something someday. Look at the Original Apple 1. It's sold at auction for upwards of \$905,000.

Repair: People often throw out and replace broken electronics instead of getting them repaired.

True, repairs can be expensive, but for those who aren't afraid of a DIY project, it's a cheap fix. Online resources like, iFix it a website that boasts free repair guides for everything, provide reliable information that'll help you get your tech back in working order. Always remember to be safe, though.

Recycle: As a last resort, you can always recycle your e-waste—just make sure you’re doing it correctly! Many communities have e-waste recycling events and drop-off depots that handle these materials.

If your city is currently a member of our network, download the Recycle Coach app to find out how. Organizations like Teracycle accept e-waste in the U.S. and Canada. So do some manufacturers and retailers, like Apple and Best Buy.

C. What are the benefits of going paperless?

Ans: - **The benefits of going paperless:-**

1. Greater efficiency and fewer errors

When you switch to an all-digital system, you can cut down significantly on human error. For example, forms that are digitally scanned rather than typed into a database have fewer errors. Some banks have reported that the number of errors decreased so much after going paper free that they had to shut down departments dedicated to fixing mistakes and redeploy those staff, reports American Banker. That’s a good problem to have.

2. Faster customer service

You can greatly speed up customer service if you move to a digital landscape. Most businesses traditionally relied on paper for applications and opening new accounts, but many that digitize the process find that lowering the barrier to entry increases their number of customers, notes American Banker.

3. Cost savings

Although an initial investment is needed, businesses that go paperless eventually see that money returned. Consider this: An average office worker uses 10,000 sheets of copy paper a year, according to data cited in Entrepreneur.

4. Flexible work environment

If you employ a document management system and keep your files in the cloud, your employees have more flexibility. Is an employee ill but wants to work from home? If you’ve gone digital, they can access all their files online and still meet those vital deadlines.

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

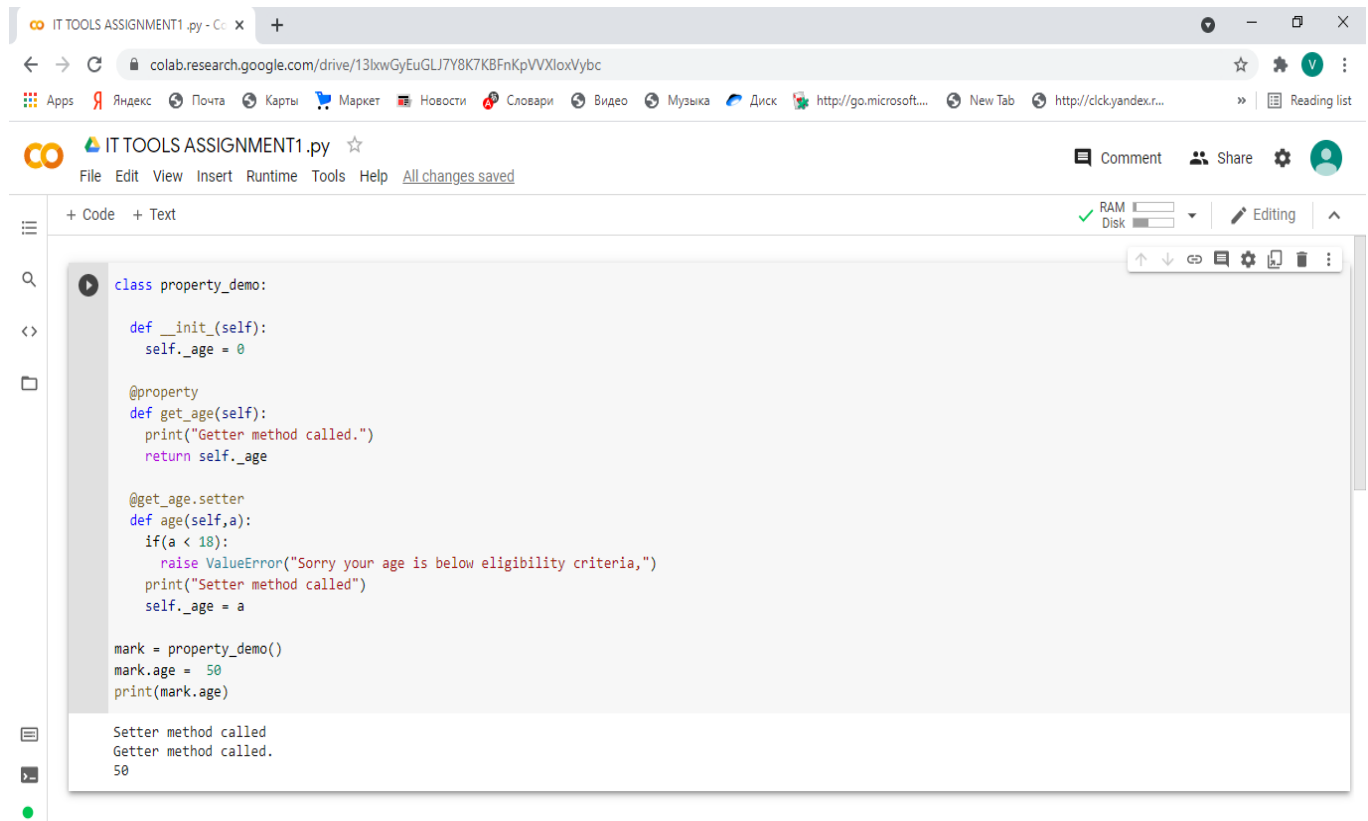
Ans:- GitHub hosts your source code projects in a variety of different programming languages and keeps track of the various changes made to every iteration. So, the “Git” implies the version control system; a tool which allows developers to keep track of the constant revisions to their code.

Advantages of GitHub:-

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. It is fast. It provides good backup. Multiple developers can work.

E. Write a program using PEP8 rules.

Ans:-



The screenshot shows a Google Colab notebook titled "IT TOOLS ASSIGNMENT1.py". The code defines a class `property_demo` with an `__init__` method, a `get_age` property method, and a `set_age` setter method. The `set_age` method includes a check for age eligibility (18 or older) and raises a `ValueError` if the age is below 18. The code then creates an instance of the class, sets its age to 50, and prints the age.

```
class property_demo:

    def __init__(self):
        self._age = 0

    @property
    def get_age(self):
        print("Getter method called.")
        return self._age

    @get_age.setter
    def age(self,a):
        if(a < 18):
            raise ValueError("Sorry your age is below eligibility criteria,")
        print("Setter method called")
        self._age = a

mark = property_demo()
mark.age = 50
print(mark.age)
```

The output of the code is:

```
Setter method called
Getter method called.
50
```