Date : 31th May 2021

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Day -5- Report

(Work Summery)

INTERNSHIP at AkashTechnolabs

- Today it was the Fifth day of our Internship and we were very excited to learn something new.

- In this session many students were asked their doubts and ma'am was trying to solve it.

- Taken by : Devanshi Prajapati

❖ Day-5 : What we have learnt ?

- In today's session of python for Django we learned about class concept in object oriented programming language.
- Firstly we learned 'what is class and why it is so important for any OOP languages?'. Which help us to make ourselves comfortable before diving more deeply in it.
  Then we learned how to define any class in python and basic syntax of defining class in python programming language.
  Syntax: "class Myclass:"

- Classes are mostly used to contain data field to store the data and defining various useful methods'.
- Then we learned how to access class field like variables and it defined methods to perform any according tasks. This requirement is fulfilled by Object of that class which is also known as instance of class which provide access for any element or method of that related class.
    - **Syntax: "object = Myclass()"**
- Then we perform our first program of this session related to class to understand well practically.
- Then we differentiate method and function and understand what are various difference between methods and functions.
- Then we get to know about 'self' argument which are mostly used in method of class call initializer this method is also known as '__init__' method its work is to initialize the variable of class.
- This __init__ method is also called constructor of class. There are mainly two type of constructor in python.
- **Default Constructor**
- **Parameterized Constructor**
- Then we learned how to use and when to use these above mentioned constructors by taking one example.
- Then we got introduced to the most important and enrich concept of OOP known as 'INHERITANCE' and its various types. It allows user to make general class and then extend that class in more specialized class (parent-child class concept).
    - **Syntax: class Subclass(Superclass):**
        - **#body**

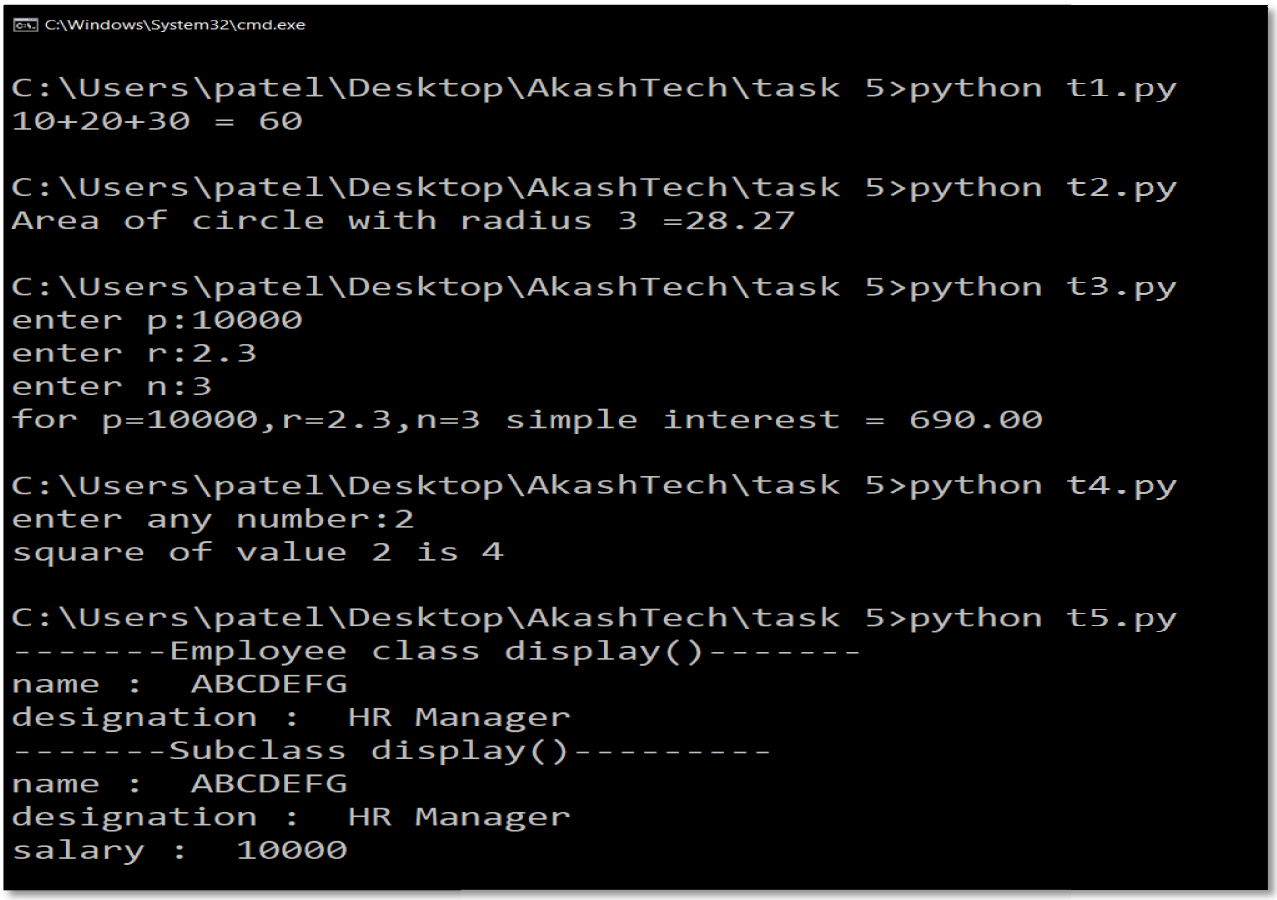
- Types:
  - Single-Level Inheritance
  - Multi-level Inheritance
  - Multiple Inheritance
  - Hierarchical Inheritance
  - Hybrid Inheritance
- The we learned these types of inheritance deeply with example of each type which help use to make understand very well and conceptual way.
- Then we learned 2nd most important topic of OOP called '**Polymorphism'.** Which is ability to use common interfaces for multiple form
- **Overriding Methods**
- **Overloading Methods**
- We performed some example related to both type of polymorphism. And dive into base of OOP.

✧ This Internship is Task Based Internship. So at the end of this session we got one Task.

❖ Tasks :-

We are given several task based on class and inheritance here are their output.

❖ Output :-



```
C:\Windows\System32\cmd.exe

C:\Users\patel\Desktop\AkashTech\task 5>python t6.py
enter length:12
enter width:21
Area of rectangle with length=12 and width =21 is 252

C:\Users\patel\Desktop\AkashTech\task 5>python t7.py
enter length:2
Area of square with length = 2 is 4

C:\Users\patel\Desktop\AkashTech\task 5>python t8.py
----Publisher display()----
Name :  John Carter
----Book display()----
Name :  John Carter
Pages: 200
----Tape display()----
Name :  John Carter
Pages: 200
time :3 hrs

C:\Users\patel\Desktop\AkashTech\task 5>python t9.py
Scheme id       :  1
Scheme name     :  ABC
Outgoing rate   :  20.4
Message Charge  :  10000
Customer id :  10
Customer name :  PQR
Customer mobile :  1234569878

C:\Users\patel\Desktop\AkashTech\task 5>python t10.py
enter a: 12
enter b: 21
230
12 + 21 = 33
12 - 21 = -9
12 * 21 = 252
```