Assignment 7 oops concepts

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Q1. What is Abstraction in OOps? Explain with an example.

ans :- abstraction is hiding a unnecessary information from users and create skeleton and blueprint.

```
[2]: import abc
     class pwskills:

         @abc.abstractmethod
         def student_detail(self):
             pass

         @abc.abstractmethod
         def student_assignment(self):
             pass

         @abc.abstractmethod
         def student_marks(self):
             pass
```

```
[ ]: class student_details(pwskills):

         def student_details(self):
             return 'this is method for taking student details'

         def student_assignment(self):
             return 'this is method for taking student assignment details of␣
       ↪particular student'
```

```
[ ]: class data_sciences_masters(pwskills):

         def student_details(self):
             return 'this will return student details of data sciences masters'

         def student_assignment(self):
             return 'this will return student assignemt details for data sciences␣
       ↪masters'
```

Q2. Differentiate between Abstraction and Encapsulation.

ans:-Abstraction is a design level process and it is used to reduce the complexity at the designing stage of a project. Encapsulation is an implementation level process, and it is used to provide privacy and maintain control over the transparency of data at the implementation stage of a project.

Q3. What is abc module in python? Why is it used?

ans:-@abc modules provides the infrastructure for defining abstract base classess in python because used to crafting base classes

Q4. How can we achieve data abstraction?

ans:- abstraction can be achieved by using abstract classes and interfaces.

Q5. Can we create an instance of an abstract class? Explain your answer.

ans:-No,Abstract classes are not complete, as they may have some methods that are not defined. So we cannot create an instance or object of an abstract class in Python.

[ ]:

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