Chapter 2 - Classmethod

Theory:

Class methods are bound to the class, not instances.

Code Example:

```
# ■ @classmethod kya hota hai?
# ■ Normal method kya karta hai?
# Ek normal method object (yaani instance) ke liye hota hai.
# class Student:
# def show(self):
# print("I am a student")
#
# s1 = Student()
# s1.show() # ■ object bana ke call kiya
# ■ Lekin @classmethod class ke liye hota hai — bina object banaye bhi chalta hai.
# ■ Syntax:
# class ClassName:
# @classmethod
# def method_name(cls):
# # code here
# ■ Yahan cls matlab "class" (jaise self object hota hai)
# ■ Example 1: Simple class method
class School:
school_name = "ABC School"
@classmethod
def get_school_name(cls):
print("School ka naam:", cls.school_name)
School.get_school_name() # ■ bina object ke call ho gaya
#cls.school_name ka matlab: class ka variable use karna.
# ■ Difference between self vs cls?
# Term Meaning Used For
# self object (instance) normal methods
# cls class (not object) class methods
# ■ Example 2: Class method se object banana (Alternative constructor)
# python
# Copy
# Edit
class Student:
def __init__(self, name, age):
self.name = name
self.age = age
@classmethod
def from_string(cls, string_data):
name, age = string_data.split("-")
return cls(name, int(age))
s1 = Student.from_string("Amit-22")
print(s1.name, s1.age)
# ■ Class method ne ek string ko tod kar object bana diya.
# ■ Summary:
# Feature Explanation
# @classmethod Method jo class par kaam karta hai
# Uses cls cls ka matlab class ka reference
# Call without object Yes! Direct class se call kar sakte ho
```

```
# Common use Class variables access, object banane ke shortcut
#my code
class Employee:
a = 1
@classmethod
def show(cls):
print(f"The class value of a is {cls.a}")
e = Employee()
e.a = 45
e.show()
print(e.a)
```