PROGRAM : B.TECH/CSE

SPECIALIZATION : AIML

COURSE TITLE : AI ASSISTANT CODING

COURSE CODE : 24CS101PC214

SEMESTER : 3RD

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BATCH NO : 01

Task Description#1

- Task #1 – Syntax Error in Conditionals

```python
a = 10
if a = 10:
    print("Equal")
```

Expected Output#1

- Corrected function with syntax fix

Prompt:

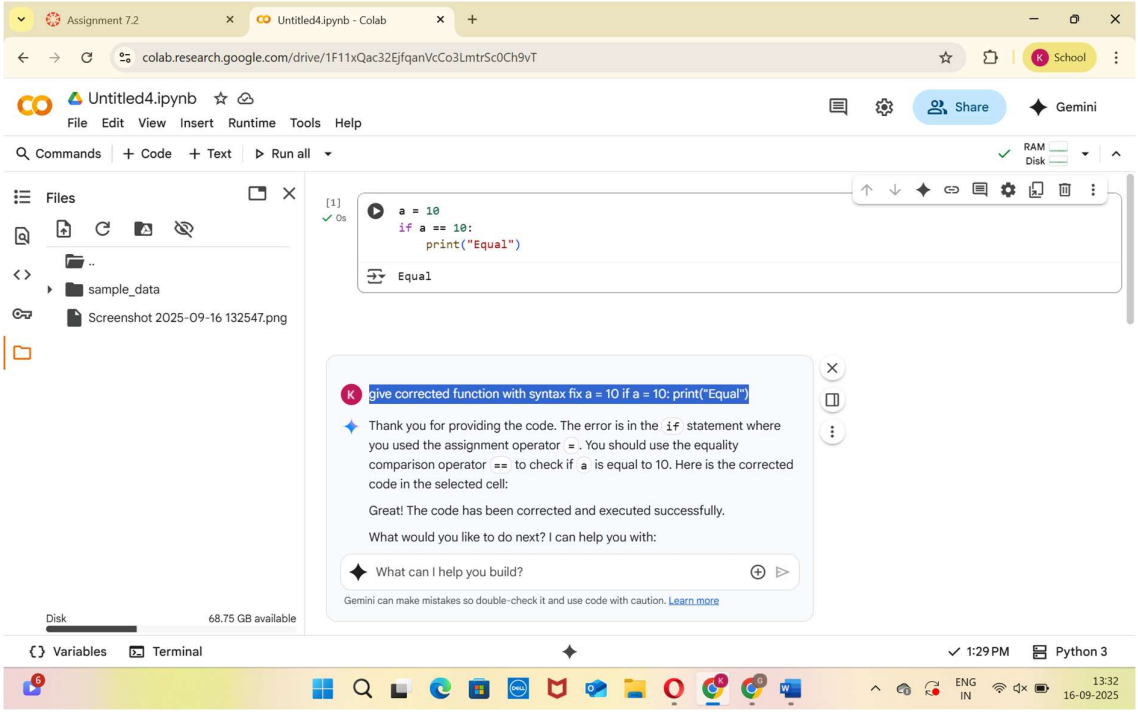
give corrected function with syntax fix

a = 10

if a = 10:

print("Equal")

Code & output:



Observation:

This code snippet demonstrates a basic conditional statement in Python. It initializes a variable a with the value 10 and then uses an if statement to check if a is equal to 10. If the condition is true, it prints the string "Equal". This is a simple example of controlling program flow based on a condition.

Task Description#2 (Loops)

- Task #2 – Loop Off-By-One Error.

```
def sum_upto_n(n):
    total = 0
    for i in range(1, n):
        total += i
    return total
```

Expected Output#2

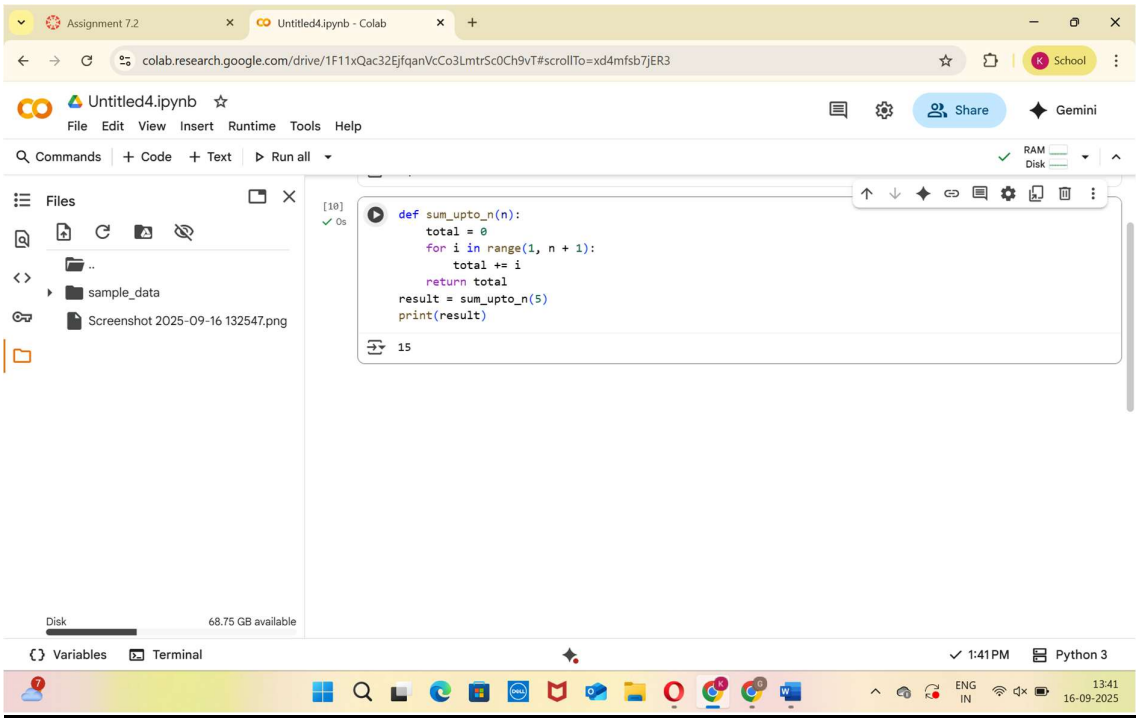
- AI fixes increment/decrement error

Prompt:

give the code by fixing the error

```
def sum_upto_n(n):
    total = 0
    for i in range(1, n):
        total += i
    return total
```

Code & output:



Observation:

This code defines a function sum_upto_n that calculates the sum of all integers from 1 up to a given number n. It uses a for loop to iterate through the numbers and accumulate the sum in the total variable. Finally, it calls the function with n=5 and prints the result.

Task Description#3

- Error: AttributeError

```
class User:
    def __init__(self, name):
        self.name = name

u = User("Alice")
print(u.getName())
```

Expected Output#3

- Identify the missing method and correct the code.

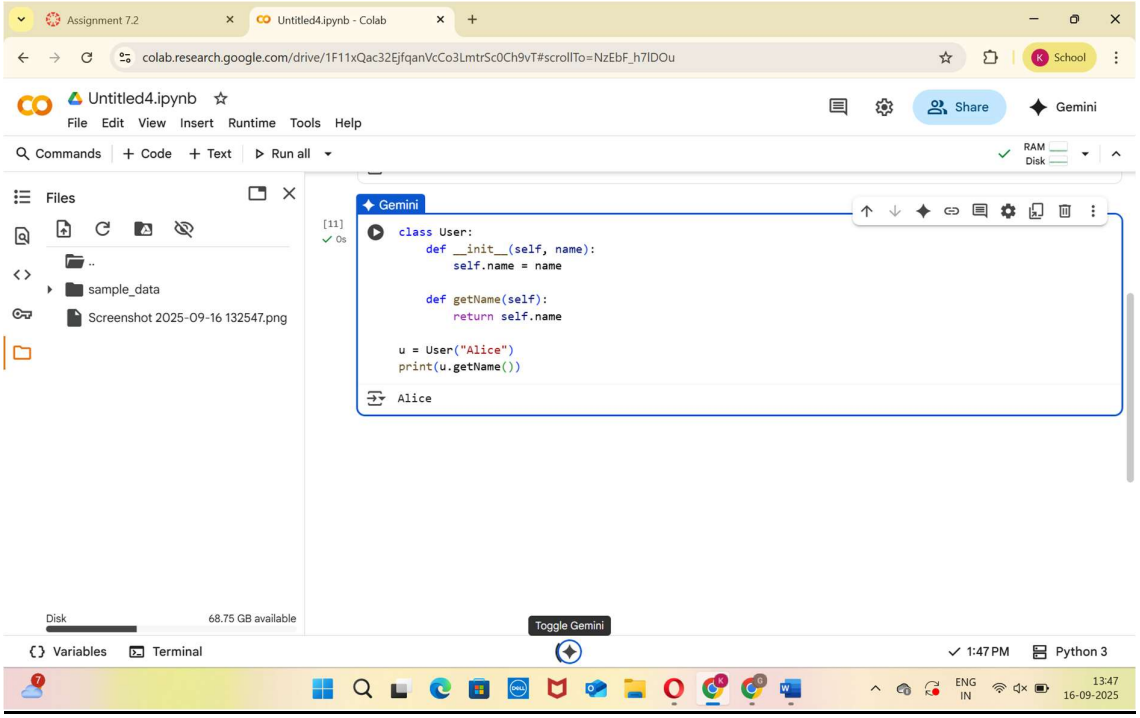
Prompt:

Give the corrected code

```
class User:
   def __init__(self, name):
      self.name = name


u = User("Alice")
print(u.getName())
```

Code & output:



Observation:

This code demonstrates the creation of a simple Python class User with an initializer (__init__) to set the user's name and a method getName to retrieve the name. It then creates an instance of the User class and calls the getName method to print the user's name. This illustrates basic object-oriented programming concepts like encapsulation and methods.

Task Description#4

- **Incorrect Class Attribute Initialization**

```
class Car:
    def start():
        print("Car started")

mycar = Car()
mycar.start()
```

Expected Output#4

- Detect missing self and initialize attributes properly.

Prompt:

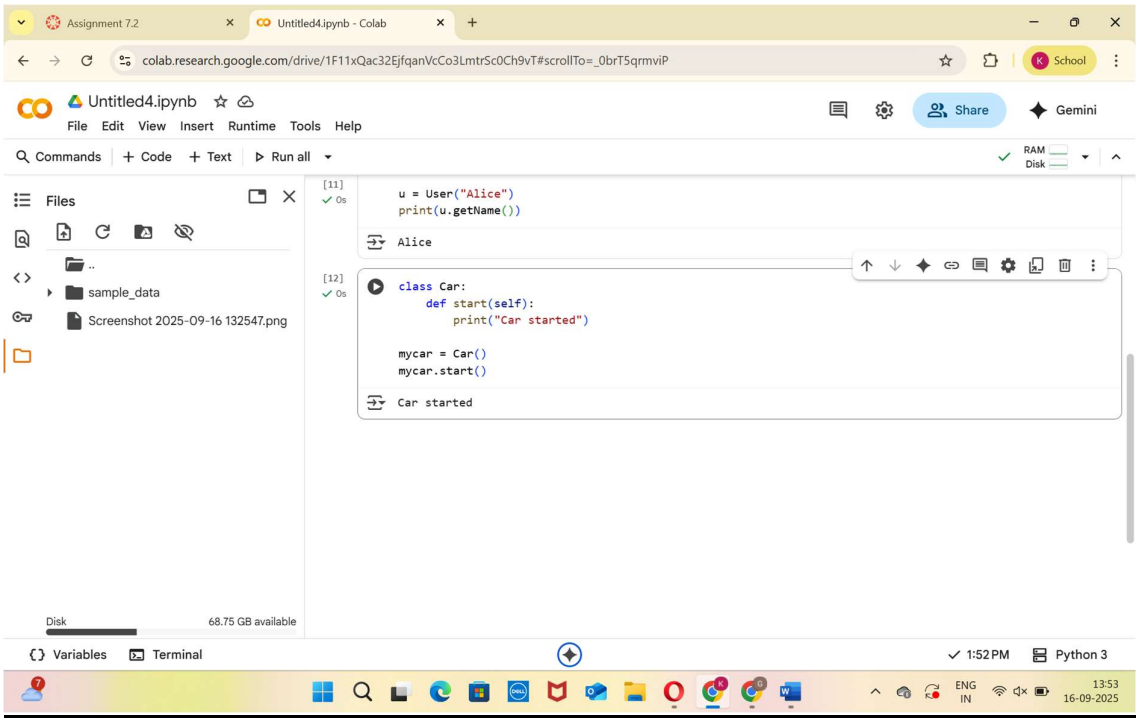
give the corrected code by detecting missing self and also initialize attributes properly.

```
class Car:
  def start():
    print("Car started")
```

mycar = Car()

mycar.start()

Code & output:



Observation:

This code demonstrates the basic concept of creating a class and an object in Python, and calling a method on that object. It shows how to define a class with a method and then instantiate that class to create an object that can access the method.

Task Description#5

- Conditional Logic Error in Grading System

```
def grade_student(score):
    if score < 40:
        return "A"
    elif score < 70:
        return "B"
    else:
        return "C"
```

Expected Output#5

- Detect illogical grading and correct the grade levels.

Prompt:

Give correct version of code by detecting illogical grading and correct grade levels

def grade_student(score):

if score<40:

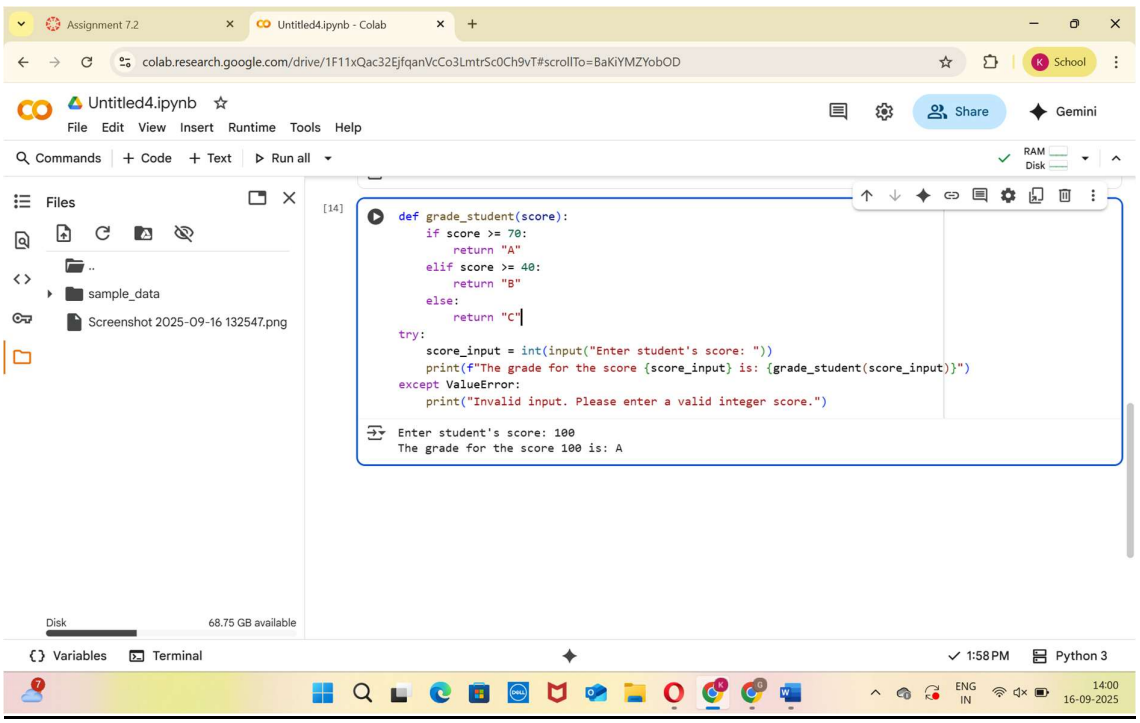
return "A"

elif score<70:

return "B"

else: return "C"

Code & output:



Observation:

This code defines a function grade_student that takes a score as input and returns a letter grade based on the provided grading scale. It then prompts the user to enter a score, handles potential invalid input, and prints the corresponding grade.