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FYCS A

PRACTICAL 4

4	Tuples and Their Applications Create a program to handle student records. • Store student details (roll number, name, marks) in a tuple. • Use tuple unpacking to retrieve the details. • Create a function that accepts variable-length argument tuples and calculates the average marks of the students.

""" Tuples and Their Applications Create a program to handle student records.

● Store student details (roll number, name, marks) in a tuple.

● Use tuple unpacking to retrieve the details.

● Create a function that accepts variable-length argument tuples and calculates the average marks of the students. """

```python
# Function to calculate average marks

def average_marks(*students):

    total = 0

    for stu in students:

        total += stu[2]   # marks are at index 2

    return total / len(students)


# Taking number of students

n = int(input("Enter number of students: "))


# Empty list to store all student tuples

student_list = []


# Taking details for n students

for i in range(n):
```

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```python
    print(f"\nEnter details for Student {i+1}:")

    roll = int(input("Roll No: "))

    name = input("Name: ")

    marks = int(input("Marks: "))

    student_list.append((roll, name, marks))  # Tuple packing


# Tuple unpacking example (first student)

roll, name, marks = student_list[0]

print("\nFirst Student Details:")

print("Roll No:", roll)

print("Name:", name)

print("Marks:", marks)


# Calculate and display average marks

avg = average_marks(*student_list)  # unpack list into function

print("\nAverage Marks of all students:", avg)
```

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```
>>> = RESTART: C:/Users/admin/Documents/PCACS PYTHON/PRACTICAL 4 PYTHON PROGRAMMING
    FY BSc. COMPUTER SCIENCE-C 1400. KRISHNA KAMLESH SINGH.py
    Enter number of students: 3

    Enter details for Student 1:
    Roll No: 1400
    Name: KRISHNA
    Marks: 98

    Enter details for Student 2:
    Roll No: 1401
    Name: RUPESH
    Marks: 98

    Enter details for Student 3:
    Roll No: 1402
    Name: SOMM
    Marks: 97

    First Student Details:
    Roll No: 1400
    Name: KRISHNA
    Marks: 98

    Average Marks of all students: 97.66666666666667
```