INDIAN INSTITUTE OF INFORMATION TECHNOLOGY SONEPAT

PP ASSIGNMENT

(CSC-552)

Assignment#1

Submitted To:

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1.Write a program to calculate the electricity bill (accept number of unit from user) according to the following criteria:

Unit	Price
First 100 units	No charge
Next 100 units	Rs. 5 per unit
After 200 units	Rs. 10 per unit

(For example, if input unit is 350 than total bill amount is Rs. 2000)

Code:
```
unit = int(input("Enter the number of units: "))
if unit<=100:
    print("Your Bill is Rs 0")
elif unit<=200 and unit>100:
    bill=(unit-100)*5
    print("Your Bill is Rs" , bill)
else:
    bill=(unit-200)*10 + 500
    print("Your Bill is Rs" , bill)
```
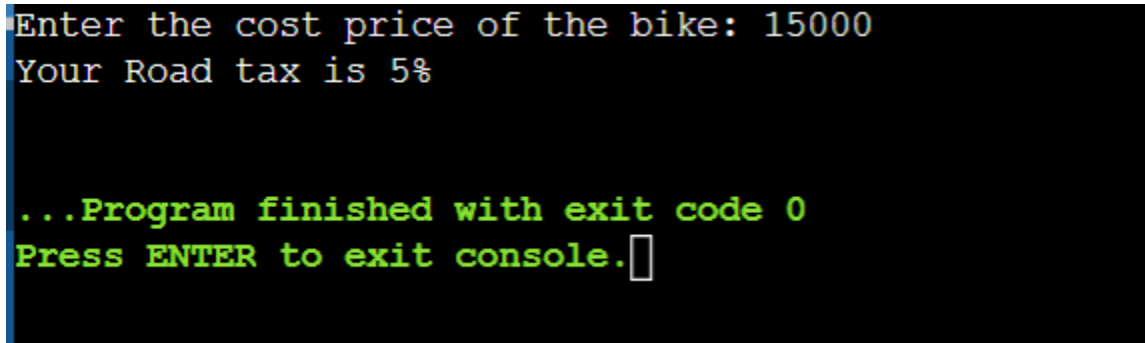
```
Enter the number of units: 500
Your Bill is Rs 3500


...Program finished with exit code 0
Press ENTER to exit console.
```

2.Write a program to accept the cost price of a bike and display the road tax to be paid according to the following criteria:

Cost price (in Rs.)	Tax
>100000	15%
>50000 and <= 100000	10%
<=50000	5%

Code:
```
cp = int(input("Enter the cost price of the bike: "))
if cp>100000:
      print("Your Road tax is 15%")
elif cp<=100000 and cp>50000:
      print("Your Road tax is 10%")
else:
      print("Your Road tax is 5%")
```

```
Enter the cost price of the bike: 15000
Your Road tax is 5%


...Program finished with exit code 0
Press ENTER to exit console.
```
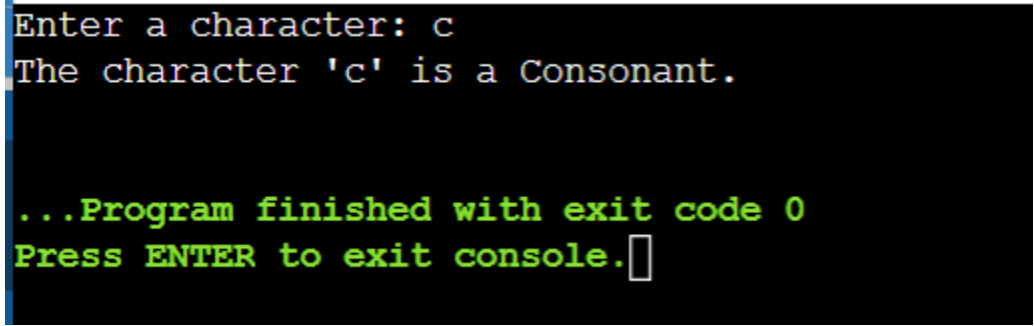
3.Write a program to check a character is vowel, consonant, or a digit.
Code:
```
def check_char_type(char):
      if char.isalpha():
            if char.lower() in 'aeiou':
                  return "Vowel"
            else:
```

```python
            return "Consonant"
        elif char.isdigit():
            return "Digit"
        else:
            return "Other"


char = input("Enter a character: ")
char_type = check_char_type(char)
print(f"The character '{char}' is a {char_type}.")
```

```
Enter a character: c
The character 'c' is a Consonant.


...Program finished with exit code 0
Press ENTER to exit console.
```

4.Accept the following from the user and calculate the percentage of class attended:

a. Total number of working days
b. Total number of days for absent

After calculating percentage show that, if the percentage is less than 75, then student will not be able to sit in exam.

Code:
```python
total_working_days = int(input("Enter the total number of working days: "))
days_absent = int(input("Enter the total number of days absent: "))
attendance_percentage = ((total_working_days - days_absent) / total_working_days) * 100
print(f"Attendance Percentage: {attendance_percentage:.2f}%")
```

```
if attendance_percentage < 75:
        print("Sorry, the student is not eligible to sit in the exam.")
else:
        print("The student is eligible to sit in the exam.")
```

```
Enter the total number of working days: 100
Enter the total number of days absent: 10
Attendance Percentage: 90.00%
The student is eligible to sit in the exam.


...Program finished with exit code 0
Press ENTER to exit console.
```

5.A company decided to give bonus to employee
according to following criteria:

Time period of service	Bonus
More than 10 years	10%
>=6 and <=10	8%
Less than 6 years	5%

Ask user for their salary and years of service and print the
net bonus amount.

Code:

```
salary = float(input("Enter your salary: "))
years_of_service = int(input("Enter your years of service: "))
if years_of_service > 10:
        bonus_percentage = 0.10
elif years_of_service >= 6:
        bonus_percentage = 0.08
else:
        bonus_percentage = 0.05
```

```python
bonus_amount = salary * bonus_percentage
print(f"Net Bonus Amount: Rs {bonus_amount:.2f}")
```

```
Enter your salary: 5000000
Enter your years of service: 15
Net Bonus Amount: Rs 500000.00


...Program finished with exit code 0
Press ENTER to exit console.
```