

# **RIPHAH INTERNATIONAL** **UNIVERSITY, ISLAMABAD**



## **Lab#3**

**Bachelors of Computer Science – 6<sup>th</sup> Semester**

**Course: Artificial Intelligence**

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**Task#1: Program to check whether the number is single digit, double digit or triple digit?**

```
AI_Lab#3_Task#1.py ×  
1   number = int(input("Enter a number: "))  
2  
3   ✓ if number < 10:  
4       print("Single digit")  
5   ✓ elif number < 100:  
6       print("Double digit")  
7   ✓ else:  
8       print("Triple digit")  
9
```

**Output:**

```
"C:\Users\FAROOQ HASSAN\AppData  
Enter a number: 77  
Double digit
```

**Task#2: Write a program in which take a value from user and check whether the entered number is Odd or Even?**

```
1  number = int(input("Enter a number: "))
2
3  if number % 2 == 0:
4      print("Even")
5  else:
6      print("Odd")
7
```

**Output:**

```
"C:\Users\FAROOQ HASSAN\AppData
Enter a number: 6
Even
```

**Task#3:** Take values of length and breadth of a rectangle from user and check if it is square or not.

```
length = float(input("Enter the length: "))
breadth = float(input("Enter the breadth: "))

if length == breadth:
    print("It is a square.")
else:
    print("It is not a square.")
```

**Output:**

```
"C:\Users\FAROOQ HASSAN\AppData\Local\Microsoft\Windows\CurrentVersion\Explorer\RecentItems"
Enter the length: 7
Enter the breadth: 7
It is a square.
```

**Task#4:** A company decided to give bonus of 5% to employee if his/her year of service is more than 5 years. Ask user for their salary and year of service and print the net bonus amount.


```
1 salary = float(input("Enter your salary: "))
2 years = int(input("Enter years of service: "))
3
4 if years > 5:
5     bonus = salary * 0.05
6     print("Your bonus is:", bonus)
7 else:
8     print("No bonus for less than 5 years of service.")
9
```

**Output:**

```
"C:\Users\FAR00Q HASSAN\AppData\Loca
Enter your salary: 200000
Enter years of service: 6
Your bonus is: 10000.0
```

**Task#5:** Write a program that checks if a given year is a leap year. A year is a leap year if:  
It is divisible by 4, but not by 100, unless it is also divisible by 400.

```
year = int(input("Enter a year: "))

if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print(year, "is a leap year.")
else:
     print(year, "is not a leap year.")
```

**Output:**

```
"C:\Users\FAR00Q HASSAN\AppData
Enter a year: 2004
2004 is a leap year.
```