**RIPHAH INTERNATIONAL UNIVERSITY, ISLAMABAD**

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**Lab 3**

**Bachelors of Computer science – 6th semester**

**Subject:** Artificial Intelligence Lab

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**Date:** 18h February, 2024

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

num = int(input("Enter a number: "))

if num < 10:

print("Single digit number")

elif num < 100:

print("Double digit number")

elif num < 1000:

print("Triple digit number")

else:

print("More than three digits")

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

num = int(input("Enter a number: "))

if num < 10:

    print("Single digit number")

elif num < 100:

    print("Double digit number")

elif num < 1000:

    print("Triple digit number")

else:

    print("More than three digits")

**Output:**

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

num = int(input("Enter a number: "))

if num % 2 == 0:

print("Even number")

else:

print("Odd number")

*# 2. Check if the number is Odd or Even*

num = int(input("Enter a number: "))

if num % 2 == 0:

    print("Even number")

else:

    print("Odd number")

**Output:**

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

length = int(input("Enter length: "))

breadth = int(input("Enter breadth: "))

if length == breadth:

print("It is a square")

else:

print("It is not a square")

*# 3. Check if a rectangle is a square*

length = int(input("Enter length: "))

breadth = int(input("Enter breadth: "))

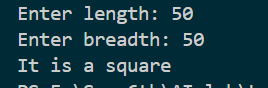
if length == breadth:

    print("It is a square")

else:

    print("It is not a square")

**Output:**

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**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.**

salary = float(input("Enter your salary: "))

years\_of\_service = int(input("Enter years of service: "))

if years\_of\_service > 5:

bonus = salary \* 0.05

print("Bonus amount:", bonus)

else:

print("No bonus")

*# 4. Calculate bonus for an employee*

salary = float(input("Enter your salary: "))

years\_of\_service = int(input("Enter years of service: "))

if years\_of\_service > 5:

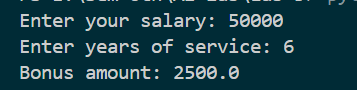
    bonus = salary \* 0.05

    print("Bonus amount:", bonus)

else:

    print("No bonus")

**Output:**

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**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("Leap year")

else:

print("Not a leap year")

*# 5. Check if a year is a leap year*

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

if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):

    print("Leap year")

else:

    print("Not a leap year")

**Output:**

