

Python Fundamentals (Assignment1)

Assignment Problems

Q1. Write a program that asks the user for their name and age, then prints a sentence like:

```
Hello Shradha, you are 21 years old!
```

Q2. Take two numbers as input from the user and print their sum, difference, product, and quotient.

Q3. Ask the user to enter two integers and one float. Convert them all to floats and print their average.

Q4. The user enters a string containing a number (e.g., "45"). Convert it to:

- an integer
- a float
- a string again

Print all three values with their types.

Q5. Evaluate and print the result of the following expression:

```
x = 10 + 3 * 2 ** 2
```

Based on what you learnt in the lecture explain why the output is what it is.

Q6. Write a program to swap values of two numbers entered by the user.

Q7. Ask the user for a temperature in Celsius (string input). Convert it to , then calculate and print temperature in Fahrenheit.

Conversion formula: $FahrenheitTemp = (CelsiusTemp * (9 / 5)) + 32$

Q8. Take the radius (r) as user input and print the area.

Use the formula: $Area = \pi * r^2$ (value of $\pi = 3.14$)

Q9. Ask the user for: Principal (P), Rate (R), Time (T). Convert all to and compute simple interest:

$$SI = (P * R * T) / 100$$

Q10. Take a decimal number as input (like 45.78) and output its:

- integer part - 45
- fractional part - .78