

LAB # 01 :Introduction to AI and Python

Programming

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Submission Instructions:

- 1)Submit clear screenshots of all attempted questions.
- 2)Save your file as your Roll Number.pdf (e.g., 21K-1234.pdf).
- 3)Upload the PDF on Google Classroom (GCR).

Note :Late submission are not accepted

Lab Exercises:

Q1. Write a Python script that uses the `print` command to display the exact text "Hello, World!" on the screen.

Q2. Write a Python script that assigns the integer value 2 to a variable named `a` and the float value 3.3 to a variable named `b`, then writes a command to print the specific data type of variable `b` to the console.

Q3. Write a Python program that asks the user to input their name using the prompt "enter your name", stores that input in a variable called `name`, and then prints the value of that variable back to the user.

Q4. Given the string variable `t = 'Hello World!'`, write a script that first slices the string to print only the characters from index 2 to 5 (which should output 'llo') and then prints the entire string repeated two times.

Q5. Create a list named `list1` containing the elements `['physics', 'chemistry', 1997, 2000]`, then write code to change the value at index 2 from 1997 to 2001 and delete the item at index 2, showing the modified list structure.

Q6. Given a tuple defined as `tuple = ('abcd', 786, 2.23)` and a list defined as `list = ['abcd', 786, 2.23]`, write the code that attempts to change the first element of both structures to 1000 and explain which one will raise a `TypeError` and why.

Q7. Create a dictionary named `tinydict` with the keys `'name'`, `'code'`, and `'dept'` (and any corresponding values you choose), and then write a command to print only the list of keys available in that dictionary.

Q8. Write a script using `if-elif-else` logic for a variable amount such that if amount is less than 1000, the discount is 5%; if it is less than 5000, the discount is 10%; otherwise, the discount is 15%, and finally print the "Net payable" amount.

Q9. Write a `while` loop that initializes a variable count to 0 and prints "The count is:" followed by the current number, continuing until the count reaches 9, at which point the loop terminates and prints "Good Bye".

Q10. Write a function called `details` that accepts a variable number of arguments using the `numbers` syntax so that it can take any number of integers, and then call this function with the values (1, 2, 3) to demonstrate it printing them.