

National Vocational & Technical Training Commission (NAVTTTC)

Artificial Intelligence

PRE-LAB (Trial)

Course Code:	Course: Artificial Intelligence
Instructor(s):	Sohail Ahmed

Objectives

- Examine the Students Prior Knowledge of the Subject

Python List

1. Create a list named fruits containing the following fruits: "apple", "banana", "orange", "grape", "kiwi".
2. Print the third element of the list.
3. Add "pineapple" to the end of the list.
4. Remove "banana" from the list.
5. Print the length of the list.
6. Check if "grape" is in the list.

Tuple

1. Create a tuple named colors containing the following colors: "red", "green", "blue", "yellow", "orange".
2. Print the second element of the tuple.
3. Print the index of "blue" in the tuple.
4. Check if "black" is in the tuple.

Dictionary

1. Create a dictionary named ages with the following key-value pairs: "Alice": 30, "Bob": 25, "Charlie": 35, "David": 40.
2. Print the age of "Charlie".
3. Add "Eve" with age 28 to the dictionary.
4. Remove "David" from the dictionary.
5. Print the keys of the dictionary.

Pandas DataFrame

1. Create a DataFrame named students with columns "Name" and "Age" containing the following data

Name	Age
Sohail	25
Sameer	22
Sandesh	28
Nouman	30

2. Print the first 2 rows of the DataFrame.
3. Print the mean age of the students.

Sets

1. Create two sets named set1 and set2 containing the following elements: set1={1, 2, 3, 4, 5} and set2={4, 5, 6, 7, 8}.
2. Print the union of set1 and set2.
3. Print the intersection of set1 and set2.
4. Add element 9 to set1.
5. Remove element 4 from set2.

Good Luck ☺