1. Write a Python function that checks whether a given number is prime or not.
2. Write a Python function that takes a string as input and returns the reversed version of the string.
3. Import Pandas and create a Data Frame with two columns - "Name" and "Age" - containing data for two individuals.
4. Import NumPy and create a 3x3 matrix with values ranging from 1 to 9.
5. Write a Python function that takes a dictionary as input and returns the keys in alphabetical order.
6. Write a Python function that calculates the factorial of a given number. Using recursion
7. Given a NumPy array arr, write code to find the mean and standard deviation of the array.
8. Given a Pandas DataFrame df with columns "A" and "B", write code to calculate the sum of column "A" for rows where column "B" is greater than 10.
9. Given a trained machine learning model, a feature matrix, and corresponding labels , write code to calculate the accuracy of the model on the test data.

from sklearn.metrics import accuracy\_score

# Your code here

model = # Trained machine learning model

X\_test = # Feature matrix for testing

y\_test = # True labels for testing

# Calculate the accuracy of the model

accuracy = # Your code here

print("Accuracy:", accuracy)

1. Write a Python function that removes duplicates from a given list and returns a new list with unique elements.
2. What is the purpose of the **try**, **except**, and **finally** blocks in Python?

a) To define a function  
b) To handle errors and exceptions  
c) To create a loop  
d) To define a class

12 How do you select the first three rows of a Pandas DataFrame **df**?

a) **df.head(3)**  
b) **df.first(3)**  
c) **df[:3]**  
d) **df.select(3)**

13 What metric is commonly used to evaluate classification models in Scikit-Learn?

a) Mean Squared Error (MSE)  
b) R-squared  
c) Accuracy  
d) F1 Score

14 Consider the following Python code:

text = "Hello, World!"

result = text.split(", ")

Which statements about the variable **result** are correct?

a) **result** will be a list with two elements: **["Hello", "World!"]**.  
b) **result** will be a string: **"Hello, World!"**.  
c) **result** will be a list with three elements: **["Hello", " World!"]**.  
d) **result** will be a list with one element: **["Hello, World!"]**.

15 Consider the following Python function:

def manipulate\_list(lst):

return [x \* 2 for x in lst if x % 3 == 0]

Which statements about the function are correct?

a) The function doubles every element in the input list.  
b) The function filters out elements that are not divisible by 3.  
c) The function returns a new list.  
d) The function modifies the input list in-place.