Practical-3

AIM :- A program that reads a text file and counts the number of words in it.

Source Code:

```
# Initialize a counter to store the total number of words
count = 0


# Open the file in read mode (change the file path as per your file location)
f = open("C:\\Users\\Sachin Prasad\\Desktop\\Python_Class\\Date\\Sachin.txt", "r")


# Iterate through each line in the file
for line in f:
    # Split the line into words using space as the delimiter
    word = line.split()
    # Add the number of words in the current line to the total count
    count += len(word)


# Print the total word count
print("Total Number of Words: " + str(count))


# Close the file to free system resources
f.close()
```

OUTPUT :

Total Number of Word : 3

Practical-4

AIM :- A program that reads a CSV file and calculates the average of the values in a specified column

Source Code:

```
import csv # Import the CSV module for reading CSV files

#Function to safely convert a value to float
def convert_to_float(value):
    try:
        # Attempt to convert the value to a float
        return float(value)
    except ValueError:
        # Return None if conversion fails (e.g., for non-numeric values)
        return None

# Open the CSV file in read mode
with open("Batch1.csv", "r") as file:
    csv_reader = csv.reader(file) # Create a CSV reader object

    next(csv_reader, None)  # Skip the header row (if any)


    # Iterate through each row in the CSV
    for row in csv_reader:
        values = []

        # Loop through each value in the row and convert it to float
        for value in row:
            convert_value = convert_to_float(value)

            if convert_value is not None:
                values.append(convert_value)

        # After processing the entire row, calculate the average
        if values:  # Only calculate if there are valid numbers
            row_average = sum(values) / len(values)

            # Print the original row and its average
            print(f"Row {row} Average : {row_average}")
```

OUTPUT :

Row ['18', 'Sachin Prasad', '4A8', 'PPFSD'] Avarage : 18.0

Row ['9', 'Rituraj Bhardawj', '4A8', 'PPFSD'] Avarage : 9.0

Row ['31', 'Kresha Shah', '4A8', 'PPFSD'] Avarage : 31.0

Practical-5

AIM :- A program that reads an Excel file and prints the data in a tabular format.

Source Code:

```
import pandas as pd  # Import the pandas library for handling Excel files


# Function to read and display Excel data in tabular format
def read_excel_and_display(file_path):
    try:
        # Read the Excel file into a DataFrame
        df = pd.read_excel(file_path)


        # Display the data in a tabular format
        print("Data from the Excel file:")
        print(df.to_string(index=False))  # Print the DataFrame without the index column
    except FileNotFoundError:
        print(f"Error: File not found at '{file_path}'. Please check the path and try again.")
    except Exception as e:
        print(f"An error occurred: {e}")


# Specify the path to the Excel file
file_path = "C:\\Users\\Sachin Prasad\\Desktop\\Python_Class\\LabPracticle\\Batch1.xlsx"


# Call the function to read and display the Excel file
read_excel_and_display(file_path)
```

OUTPUT :

```
PS C:\Users\Sachin Prasad\Desktop\Python_Class>
Data from the Excel file:
 Roll             Name Division Subject
   18    Sachin Prasad      4A8   PPFSD
    9 Rituraj Bhardawj      4A8   PPFSD
   31      Kresha Shah      4A8   PPFSD
PS C:\Users\Sachin Prasad\Desktop\Python_Class>
```