Experiment No. 12 Extracting words from Text file

AIM: Develop a python program that reads a text file and prints words of specified lengths (e.g., three, four, five etc.) found within the file.

THEORY:

In this program, we read a text file and extract words of a specified length. The fundamental concepts involved are:

1. **File Handling in Python** – Using open() to read the contents of a file.
2. **String Manipulation** – Splitting text into words using split() to process the data.
3. **List Comprehension** – Filtering words of the specified length.
4. **Exception Handling** – Using try-except blocks to handle errors such as file not found.

ALGORITHM

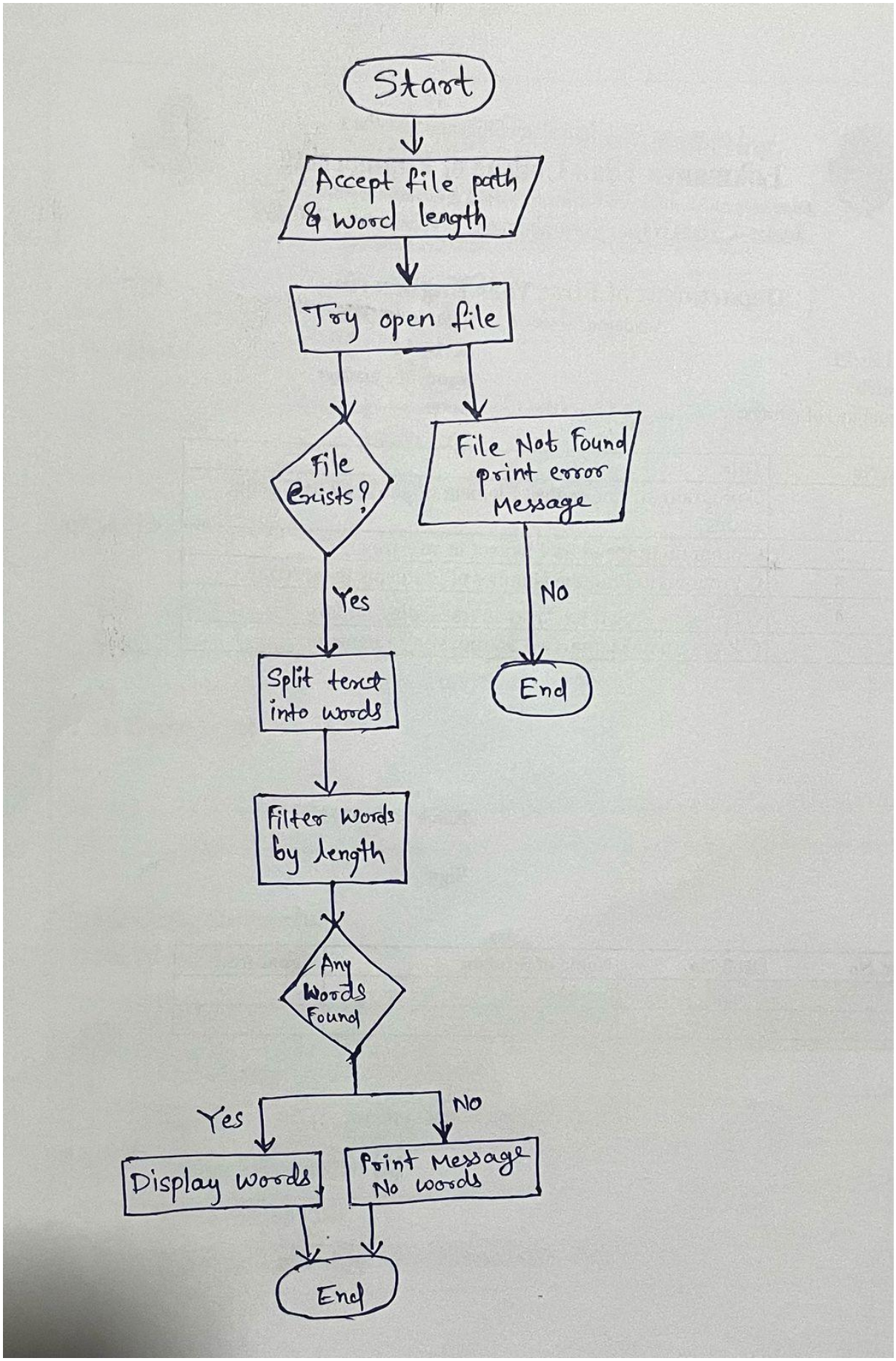
1. **Start**
2. **Accept inputs**: file path and desired word length.
3. **Try to open the file** in read mode:
4. If the file does not exist, print an error message and exit.
5. **Read the contents** of the file into a string.
6. **Split the string** into a list of words based on whitespace.

PROGRAM

```
def print_words_of_length(file_path, word_length):
    try:
        # Open the text file in read mode
        with open(file_path, 'r') as file:
            # Read the content of the file
            text = file.read()

        # Split the text into words (by whitespace)
        words = text.split()

        # Filter the words by the specified length
        words_of_length = [word for word in words if len(word) == word_length]
```

```
        # Print the words of the specified length
        if words_of_length:
            print(f"Words with {word_length} letters:")
            for word in words_of_length:
                print(word)
        else:
            print(f"No words of length {word_length} found.")

    except FileNotFoundError:
        print(f"The file at {file_path} was not found.")
    except Exception as e:
        print(f"An error occurred: {e}")

# Example usage
file_path = "sample.txt"  # Specify your file path
word_length = 4  # Specify the word length you want to search for
print_words_of_length(file_path, word_length)
```

FLOWCHART:


Start
Accept file path & word length
Try open file
File Exists?
File Not Found print error Message
Yes
No
End
Split text into words
Filter Words by length
Any Words Found
Yes
NO
Display Words
Print Message No words
End