



Shri Yashwantrao Bhonsale Education Society's  
**YASHWANTRAO BHONSALE INSTITUTE OF TECHNOLOGY**

(DTE CODE : 3470) (MSBTE Code : 1742)

Approved by AICTE, DTE & Affiliated to Mumbai University & MSBTE Mumbai  
(NBA Accredited ME, CE, EE Diploma Programs)

## **Practical No 12**

### **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.

### **Apparatus / Software Required**

- Python Interpreter (Python 3.14.2)

### **Theory**

To perform this practical, we need to understand the following important Python concepts:

#### **1. File Handling**

File handling is used to create, open, read, and write files in Python.

- `open()` is used to open a file
- "w+" mode allows both writing and reading
- `write()` is used to insert data into the file
- `read()` is used to retrieve file content
- `seek(0)` resets the file pointer to the beginning

This concept is essential because the program works with file data instead of direct user input.

#### **2. File Pointer Concept**

When data is written to a file, the pointer moves to the end.

To read the content again, we must move the pointer to the beginning using:

- `seek(0)`

Without this, the file will appear empty while reading.

#### **3. String Handling**

The content read from the file is in string format. To process it:



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- `split()` is used to divide the string into words based on spaces

This helps in analyzing each word separately.

#### **4. Looping (for loop)**

A `for` loop is used to iterate through each word obtained after splitting the string. This allows us to process multiple words one by one.

#### **5. Built-in Functions**

- `len()` is used to calculate the length of each word

This is important to determine how many characters are present in each word.

#### **6. Exception Handling**

Exception handling is used to handle runtime errors and make the program safe.

- `try`: Contains main logic
- `except`: Handles errors like file not found
- `else`: Executes when no error occurs
- `finally`: Always executes (used for closing or confirmation message)

This ensures the program does not crash unexpectedly.

### **Algorithm**

1. Start the program
2. Open the file "`Data.txt`" in write and read mode (`w+`)
3. Write a sentence into the file
4. Move file pointer to the beginning using `seek(0)`
5. Read the content of the file
6. Display heading message
7. Split the content into words using `split()`
8. For each word:
9. Calculate its length using `len()`
10. Display word and its length
11. If file is not found, display error message
12. If no exception occurs, display success message
13. Execute final block and display completion message
14. Stop the program



