



**TOPSTechnologies**

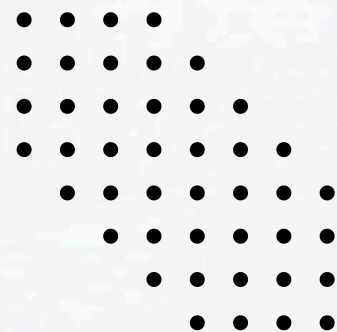
# **Reading and Writing Files**

**Presented for :**

TOPs Technologies

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### *Que 1*

In Python, you can read data from a file using different methods: `read()`, `readline()`, and `readlines()`.

#### 1. Using `read()`

- Reads the entire file as a single string.
- You can specify the number of characters to read.

basic syntax:

```
with open("example.txt", "r") as file:  
content = file.read() # Reads the whole file  
print(content)
```

#### 2. Using `readline()`

- Reads one line at a time.
- Useful when reading large files line by line.

basic syntax:

```
with open("example.txt", "r") as file:  
line1 = file.readline() # Reads the first line  
print(line1)
```

```
line2 = file.readline() # Reads the second line  
print(line2)
```

### 3. Using readlines()

- Reads all lines into a list, where each line is a list element.

Basic Syntax:

with open("example.txt", "r") as file:

```
lines = file.readlines() # Reads all lines into a list  
print(lines)
```

### Que. 2

In Python, you can write to a file using `write()` and `writelines()`.

#### 1. Using `write()`

- Writes a single string to a file.
- Overwrites the file if it already exists.
- If the file does not exist, it creates a new one.

Basic syntax:

```
with open("example.txt", "w") as file:  
    file.write("Hello, this is a test file.\n")  
    file.write("This is the second line.\n")
```

#### Appending to a File (a mode)

If you want to add content without overwriting the file, use append mode (a):

syntax:

```
with open("example.txt", "a") as file:  
    file.write("Appending a new line.\n")
```



### 2. Using writelines()

- Writes a list of strings to a file.
- Each list element is written as a separate line.
- Does not automatically add newlines (\n), so you must include them.

example:

```
lines = ["First line\n", "Second line\n", "Third line\n"]
```

```
with open("example.txt", "w") as file:  
    file.writelines(lines)
```

basic syntax:

```
lines = ["First line\n", "Second line\n", "Third line\n"]
```

```
with open("example.txt", "w") as file:  
    file.writelines(lines)
```