

Unit 3: File Handling , Packaging and Debugging

1. What is file handling in Python?

👉 Process of reading from and writing to files.

2. How to open a file in Python?

👉 Using open() function

👉 **Syntax:** open("filename", "mode")

3. What are file modes?

👉 r (read), w (write), a (append), r+, w+

4. What is read mode?

👉 Opens file for reading only.

5. How to read file content?

👉 read(), readline(), readlines()

6. What is write mode?

👉 Creates or overwrites file.

7. How to write into file?

👉 write() method

8. What is append mode?

👉 Adds data at end of file.

9. Why do we close files?

👉 To free resources

👉 **Syntax:** file.close()

10. What is with open()?

👉 Automatically closes file after use.

11. What is exception handling?

👉 Handling errors during program execution.

12. What is an exception?

👉 Error that occurs at runtime.

13. What is try-except block?

👉 Used to handle exceptions

👉 **Syntax:**

try:

 statements

except:

 statements

14. Can we use multiple except blocks?

👉 Yes

15. What is finally block?

👉 Executes always (whether exception occurs or not)

16. What is else block in exception?

👉 Executes if no exception occurs

17. What is a module in Python?

👉 File containing Python code (functions, variables)

18. How to import module?

👉 import module_name

19. What is a package?

👉 Collection of modules (folder with __init__.py)

20. What is from module import *?

👉 Imports all contents of module

21. What is executable file in Python?

👉 File that can be run directly (e.g., .py or converted .exe)

22. What is syntax error?

👉 Error due to incorrect code format.

23. What is runtime error?

👉 Error occurring during execution.

24. Example of syntax error?

👉 Missing colon : in if statement

25. Example of runtime error?

👉 Division by zero

26. What is debugging?

👉 Process of finding and fixing errors.

27. What are debugging techniques?

👉 print statements, logging, debugger tools

28. What is step-by-step debugging?

👉 Executing code line by line to find error

29. What is breakpoint?

👉 Point where execution stops for debugging

30. What is use of pdb module?

👉 Python debugger for tracing execution