

♦ Java Compilation vs Execution

1. Compilation (javac)

- Checks **syntax** only:
- Does **not check logic** (e.g., infinite loop, divide by zero).
- main method **not required** to compile.
- Output: .class files (bytecode).

2. Execution (java)

- JVM starts program by searching for:

public static void main(String[] args)

- If missing →

Error: Main method not found in class ...

- Only the class you specify in java ClassName is checked for main.
- Other classes (without main) can still exist as **helper classes**.

✅ Summary

- **Compilation** → Syntax rules only.
- **Execution** → Needs a valid main in the starting class.