-----Debugging

=> Debugging is the process of executing code line by line

- => Debugging is used to understand runtime behaviour of our code
- => Debugging is used to find problems in the code
- => To run the code in debug mode we will use break points.

What is Break point ?

A breakpoint is a special marker you set in your code to tell the debugger: $\delta\ddot{y}$ '% \hat{a} \mathref{e}\mathre{e}\text{Pause} the program execution here when debugging. \hat{a} \mathre{e}\mathre{e}

=> We will use below shortcuts in IntelliJ IDE while debugging the program

Shift + F9 : Start Debugging

Ctrl + F8 : Add/Remove breakpoint

F8 : Step over (Next Line)

F7 : Step Into (go into method)

Shift + F8 : Step Out (Exit method)

F9: Resume Program (Continue running)

Alt + F8 : View Variables

What is reset frame ?

- => It allows you to go back to a previous state in the current method.
- => Useful when you want to re-execute a method or a block of code without restarting the whole program.
- => Works only when the method is still on the call stack.

âš; Example Use Case ::

=> You're debugging and stepped into a method,

Ex:: processData().

- => You see something wrong after executing some lines or you lost your understanding.
- => Instead of restarting the whole program, you can use "reset frame" and start executing processData() method again from the startring.