

# Session Goals

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- User should be able to take input using Scanner class.
- User should be able to take input of primitive data types, arrays etc.
- User should be able to read command line arguments.
- User should be able to write multiple functions and call them in order.
- User should be able to write a Single File Program from scratch.



# Writing a Single File Program in Java

Session 11

# Session Agenda

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- Single File Program - Hotel Room Booking System



# Read inputs

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Create `getInput(message)` which uses the prompt to take input from the user after displaying the message and returns the value that the user inputs.

Use this `getInput()` function to have the users input a ToDo list and store it in a new array. Exit when user types "Done".

Print this new array.

Do it on replit: [Link](#)

**Additional Reference:** [Scanner Class Cheat Sheet](#)



# Command line arguments

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- What are command line arguments?
- Create a new file `CommandLineArgs.java`
- Take in a string and an integer as input to the program and print them (do this on repl)
  - `javac CommandLineArgs.java`
  - `java CommandLineArgs Hello 123`



# Reading Input

- **Scanner** Class
- How would you read
  - An Integer
  - The entire line as a String
  - An Array
  - ...

```
import java.util.*;
class UserInputDemo
{
    public static void main(String[] args) {
        //System.in is the standard input stream
        Scanner sc= new Scanner(System.in);
        System.out.print("Enter first number- ");
        int a = sc.nextInt();
        System.out.print("Enter second number- ");
        int b = sc.nextInt();
        System.out.print("Enter third number- ");
        int c = sc.nextInt();
        int d = a + b + c;
        System.out.println("Total= " +d);
    }
}
```

Reference - <https://www.javatpoint.com/how-to-get-input-from-user-in-java>



# Writing a SFP - Hotel Room Booking App

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You are a receptionist at a hotel which has 10 floors, numbered from 0 to 9 and each floor has 26rooms named from 'A' to 'Z'. Being a receptionist your task is to handle booking queries.

[Link](#) (Code your input into the main class itself, we won't use Scanner class here)





## Java Syntax & Constructs

1. Compile and Execute Java Programs
2. Variables, Data Types & Operators
3. Conditionals (if-else, switch-case)
4. Loops (for, while, do while, for each, nested)
5. Arrays & 2D Arrays
6. Classes, Objects & Methods
7. Packages
8. String & its methods
9. ArrayList & its methods
10. Collections - HashMap & HashSet
11. Scanner Class
12. JVM/JRE/JDK

## Coding Skills

1. Dry Run
2. Pseudo Code writing
3. Debugging - Compilation & Logical Errors

## Platforms

1. Replit
2. Crio Java Packs