

Worked Example

Joke Generator

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Step 1 – The Idea

- We want a small program that can:
 1. Tell a random joke (no input needed).
 2. Tell a funny story using a **name** provided by the user.
 3. Take in an **age**, calculate the age in 10 years, and return a jokey message.



Designing the Methods

Method Name	Parameters	Return Type	Description
tellJoke ()	none	void	Prints a random joke.
tellStory(String name)	name	void	Uses the name to tell a funny story.
ageInTenYears(int age)	age	String	Returns a message about the person's future age.

Pseudocode

- **JokeGenerator** class:
 - **tellJoke**:
Print a simple programmer joke.
 - **tellStory(name)**:
Print a short funny story that uses the person's name.
 - **ageInTenYears(age)**:
Work out age + 10.
Make a jokey message using that number.
Give the message back to whoever called it.
- **Driver** class:
 - Start the program.
 - Make a new JokeGenerator object called joker.
 - Call joker's tellJoke method.
 - Ask the user for their name.
 - Call joker's tellStory, passing in the name.
 - Ask the user for their age.
 - Call joker's ageInTenYears, store the message.
 - Print the message.
 - Program ends.

Java Code

```
public class JokeGenerator {  
  
    // Method 1: No parameters, no return  
    public void tellJoke() {  
        System.out.println("Why don't programmers like nature? It has too  
many bugs!");  
    }  
  
    // Method 2: Parameter, no return  
    public void tellStory(String name) {  
        System.out.println("Once upon a time, " + name + " tried to debug code  
at 3am...");  
        System.out.println("The bug fixed itself. Legends still talk about it.");  
    }  
  
    // Method 3: Parameter and return value  
    public String ageInTenYears(int age) {  
        int futureAge = age + 10;  
        return "In 10 years, you'll be " + futureAge + " years old — still  
debugging!";  
    }  
}
```

```
import java.util.Scanner;  
public class Driver {  
  
    public static void main(String[] args) {  
        Scanner input = new Scanner(System.in);  
  
        // Create an object of JokeGenerator  
        JokeGenerator joker = new JokeGenerator();  
  
        // 1. Tell a joke  
        joker.tellJoke();  
  
        // 2. Ask for name and tell a story  
        System.out.print("\nEnter your name: ");  
        String userName = input.nextLine();  
        joker.tellStory(userName);  
  
        // 3. Ask for age and give future message  
        System.out.print("\nEnter your age: ");  
        int age = input.nextInt();  
        String message = joker.ageInTenYears(age);  
        System.out.println(message);  
    }  
}
```

Questions?

