PROBLEM 1:- **SIMPLE ASCII ART**

```
public class SmileyFace {
   public static void main(String[] args) {
      System.out.println("  ###   ###  ");
      System.out.println("#            # ");
      System.out.println("# ##    ##   #  ");
      System.out.println("# ##    ##   #  ");
      System.out.println("#            #  ");
      System.out.println("#  #    #   #  ");
      System.out.println(" #  # #    #   ");
      System.out.println("  #  #####  #    ");
   }
}
```

PROBLEM 2:- **SMILY CAT FACE**

```
public class CatArt {
   public static void main(String[] args) {
      System.out.println("    /\\        /\\ ");
      System.out.println("   /  \\_______/  \\ ");
      System.out.println("  /            \\    ");
      System.out.println(" (   /\\       /\\   )");
      System.out.println(" ====    v     ====      ");
      System.out.println(" ====== (_|_)  ======           ");
      System.out.println("  (             )   ");
      System.out.println("   (_____________)              ");
   }
}
```

PROBLEM 3: **SNAKE BOX FACTORY**

Object 1**: Snake**

Properties:

ID: Unique identifier for each snake.

Type: Type or breed of the snake (e.g., Python, Cobra).

Status: Current status of the snake (e.g., Idle, In Transit, Delivered).

Behaviors:

Transport Box: Carries the box from one department to another.

Update Status: Changes the status of the snake (e.g., from Idle to In Transit).

Check Availability: Checks if the snake is available for the next delivery.

Object 2: **Box**

Properties:

ID: Unique identifier for each box.

Size: Dimensions of the box (e.g., small, medium, large).

Contents: Description of what is inside the box.

Behaviors:

Update Contents: Adds or removes items from the box.

Check Status: Provides information on the current status of the box (e.g., Packed, In Transit).

Track Location: Updates and provides the current location of the box.

Object 3**: Order**

Properties:

Order ID: Unique identifier for each order.

Customer Info: Information about the customer placing the order (e.g., name, address).

Order Status: Current status of the order (e.g., Processing, Shipped, Delivered).

Behaviors:

Process Order: Initiates the steps to prepare the order for shipment.

Update Order Status: Changes the status of the order as it progresses through different stages.

Generate Invoice: Creates an invoice for the order once it is completed.

Example Document Structure

Introduction

- Purpose of the software solution
- Overview of the Snake Box Factory's needs

Objects and Classes

- Detailed descriptions of the Snake, Box, and Order objects
- Properties and behaviors for each object

Software Architecture

- Overview of the system architecture
- Explanation of how objects interact within the system

Database Schema

- Tables and relationships between tables
- Sample queries for common operations
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Implementation Plan

- Steps for developing and deploying the software

- Timeline and milestones
-

Testing Plan

- Types of testing to be performed (unit testing, integration testing)
- Criteria for successful deployment