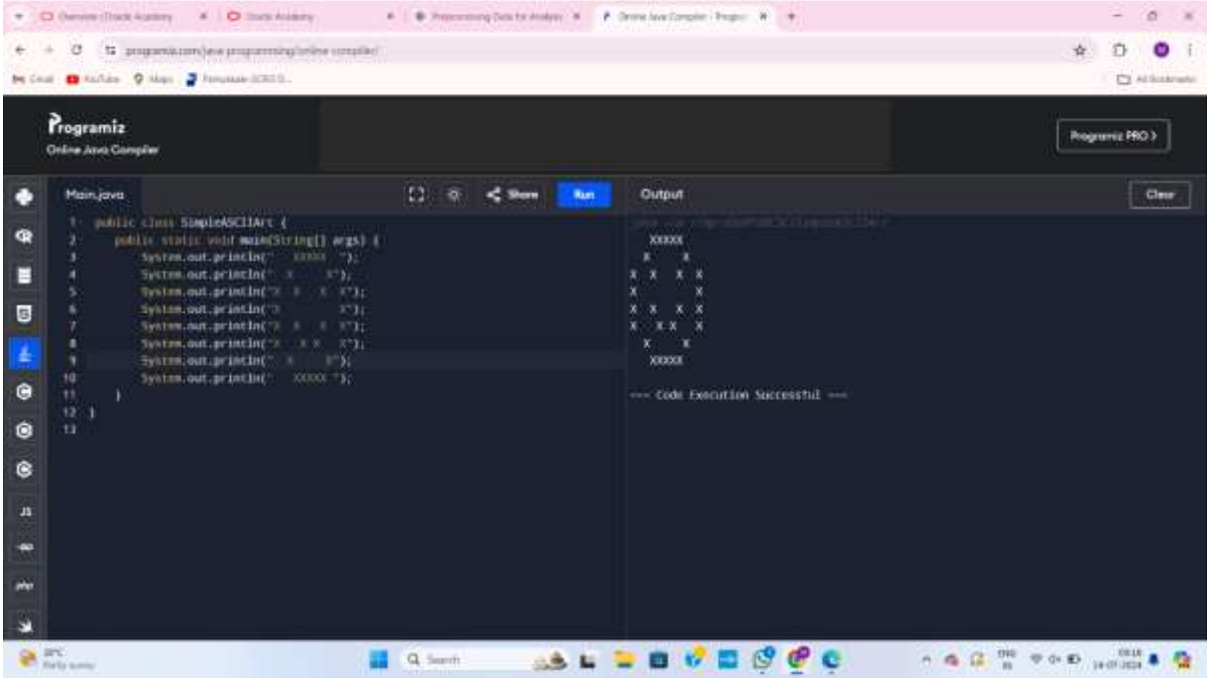
Java Foundations Practices

Section 2

Problem 1: Simple ASCII Art


Overview | Oracle Academy
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Preprocessing Data for Analysis
Online Java Compiler - Program
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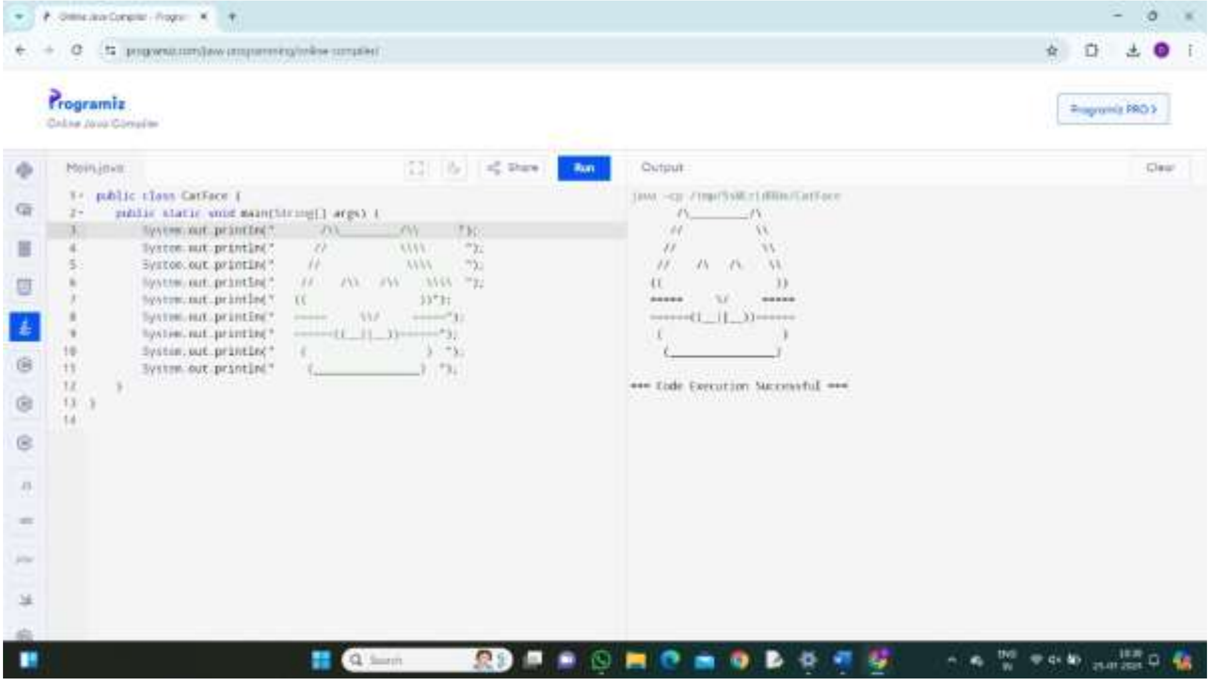
Programiz
Online Java Compiler
Programiz PRO >
Main.java
Share
Run
Output
Clear

```java
public class SimpleASCIIArt {
    public static void main(String[] args) {
        System.out.println("  XXXXX  ");
        System.out.println(" X     X");
        System.out.println("X X   X X");
        System.out.println("X       X");
        System.out.println("X X   X X");
        System.out.println("X  X X  X");
        System.out.println(" X     X");
        System.out.println("  XXXXX ");
    }
}
```

```
  XXXXX
 X     X
X X   X X
X       X
X X   X X
X  X X  X
 X     X
  XXXXX

=== Code Execution Successful ===
```

Problem 2: Original ASCII Art


Online Java Compiler - Program
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Online Java Compiler
Programiz PRO >
Main.java
Share
Run
Output
Clear

```java
public class CatFace {
    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("   (                 )  ");
        System.out.println("    (_______________)  ");
    }
}
```

```
java -cp /tmp/[illegible]/CatFace
      /\_________/\
     //           \\
    //             \\
   //   /\   /\     \\
  ((                 ))
  =====     \/     =====
  ======((__||__))======
   (                 )
    (_______________)

=== Code Execution Successful ===
```

Problem 3: The Snake Box Factory

CREATE SNAKE BOX FACTORY SOFTWARE DESIGN

1. Object: SnakeBox

Properties:

Dimensions: The size of the box, typically including length, width, and height.

MaterialQuality: The quality of the cardboard used to make the box.

SnakeType: The specific type of snake that will be placed inside the box.

Behaviors:

CalculateBoxVolume(): Computes the volume of the box based on its dimensions.

CheckMaterialQuality(): Assesses the quality of the cardboard to ensure it meets standards.

AssignSnakeType(SnakeType type): Assigns a specific snake type to the box and adjusts any related settings.

2. Object: Snake

Properties:

Species: The species of the snake.

Size: The size of the snake, which may influence the size of the box required.

HealthStatus: The current health status of the snake.

Behaviors:

ChangeHealthStatus(String status): Updates the health status of the snake.

Grow(Size newSize): Adjusts the size attribute of the snake as it grows.

GenerateReport(): Creates a report on the snake's current health and characteristics.

3. Object: Order

Properties:

OrderID: A unique identifier for each order.

CustomerDetails: Information about the customer placing the order, such as name and address.

OrderStatus: The current status of the order (e.g., Processing, Shipped, Delivered).

Behaviors:

UpdateOrderStatus(String newStatus): Changes the status of the order to reflect its current state.

GenerateInvoice(): Creates an invoice based on the details of the order.

TrackShipment(): Provides tracking information for the shipment of the order.