

E-PORTFOLIO

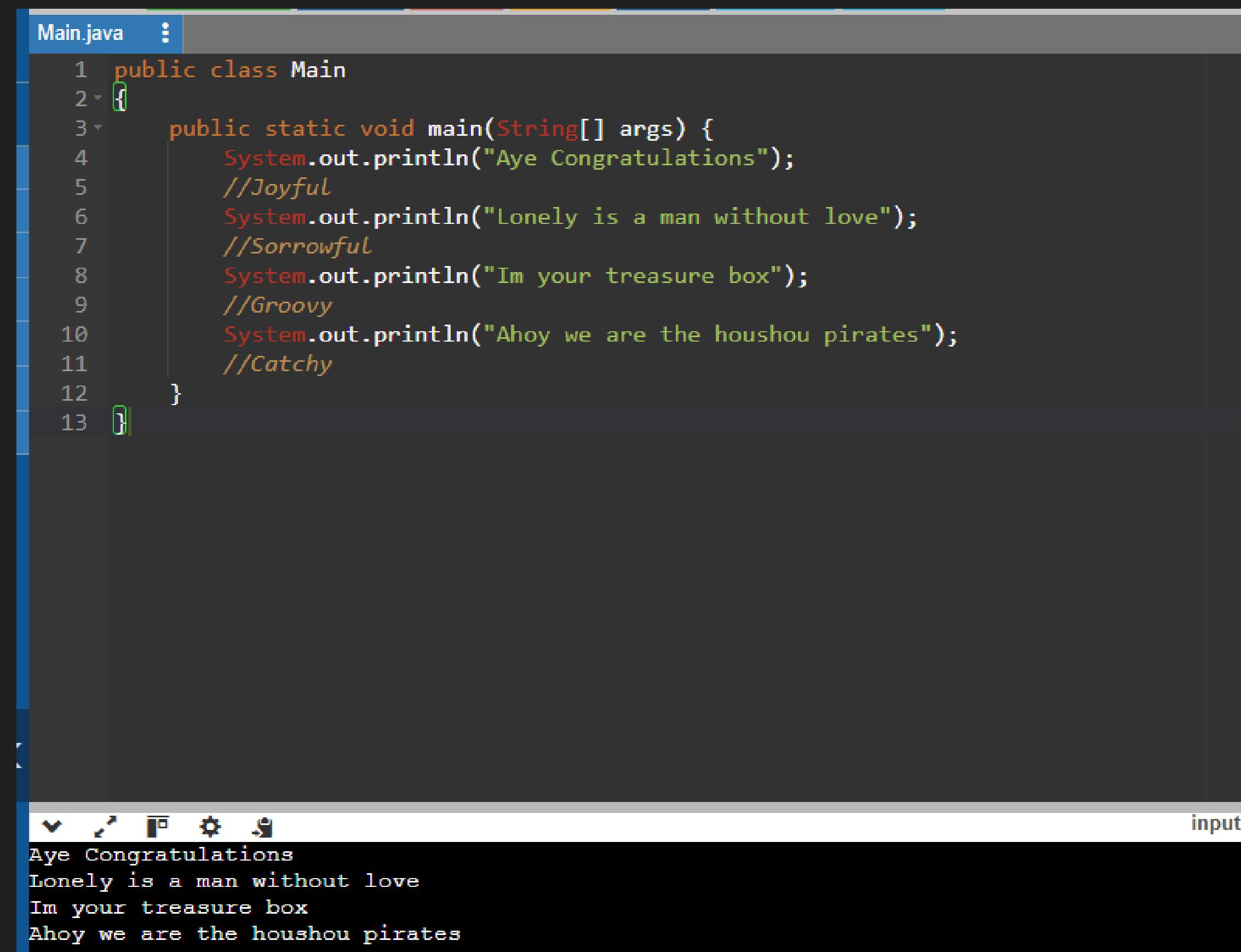
Compilation of Academic Works

Johnrich A Tamano
BI 702

E-Portfolio

1st Year

Java Fundamentals
Basic Coding Practice
Homework



The screenshot shows a Java code editor with a dark theme. The code in `Main.java` is as follows:

```
1 public class Main
2 {
3     public static void main(String[] args) {
4         System.out.println("Aye Congratulations");
5         //Joyful
6         System.out.println("Lonely is a man without love");
7         //Sorrowful
8         System.out.println("Im your treasure box");
9         //Groovy
10        System.out.println("Ahoy we are the houshou pirates");
11        //Catchy
12    }
13 }
```

Below the code editor is a terminal window showing the output of the program:

```
Aye Congratulations
Lonely is a man without love
Im your treasure box
Ahoy we are the houshou pirates
```

E-Portfolio

1st Year

Java Fundamentals
Operators
Homework

The screenshot shows a Java code editor and a terminal window. The code editor displays Main.java with the following content:

```
Main.java ::

1 public class Main
2 {
3     public static void main(String[] args) {
4         String employee = "Johnrich A Tamano";
5         Double Grosspay, taxes, sss, medicare, pagibig;
6         Grosspay = 25000.0;
7         System.out.println("Employee name" + ":" + employee);
8         System.out.println("Gross pay" + ":" + Grosspay);
9         System.out.println("-----");
10        System.out.println("Deductions" + ":" + "Amount");
11        taxes = Grosspay*0.15;
12        System.out.println("Withholding Tax" + ":" + "+" + taxes);
13        sss = Grosspay*0.0363;
14        System.out.println("SSS Contribution" + ":" + "+" + sss);
15        medicare = Grosspay*0.0125;
16        System.out.println("Medicare" + ":" + "+" + medicare);
17        pagibig = 100.00;
18        System.out.println("Pag-IBIG Contribution" + ":" + "+" + pagibig);
19        System.out.println("-----");
20        Grosspay = Grosspay-taxessss-medicarepagibig;
21        System.out.println("Net Pay" + ":" + "+" + Grosspay);
22    }
23 }
```

The terminal window shows the execution of the program. It prompts for 'Employee name' and 'Gross pay', then lists deductions and calculates the net pay.

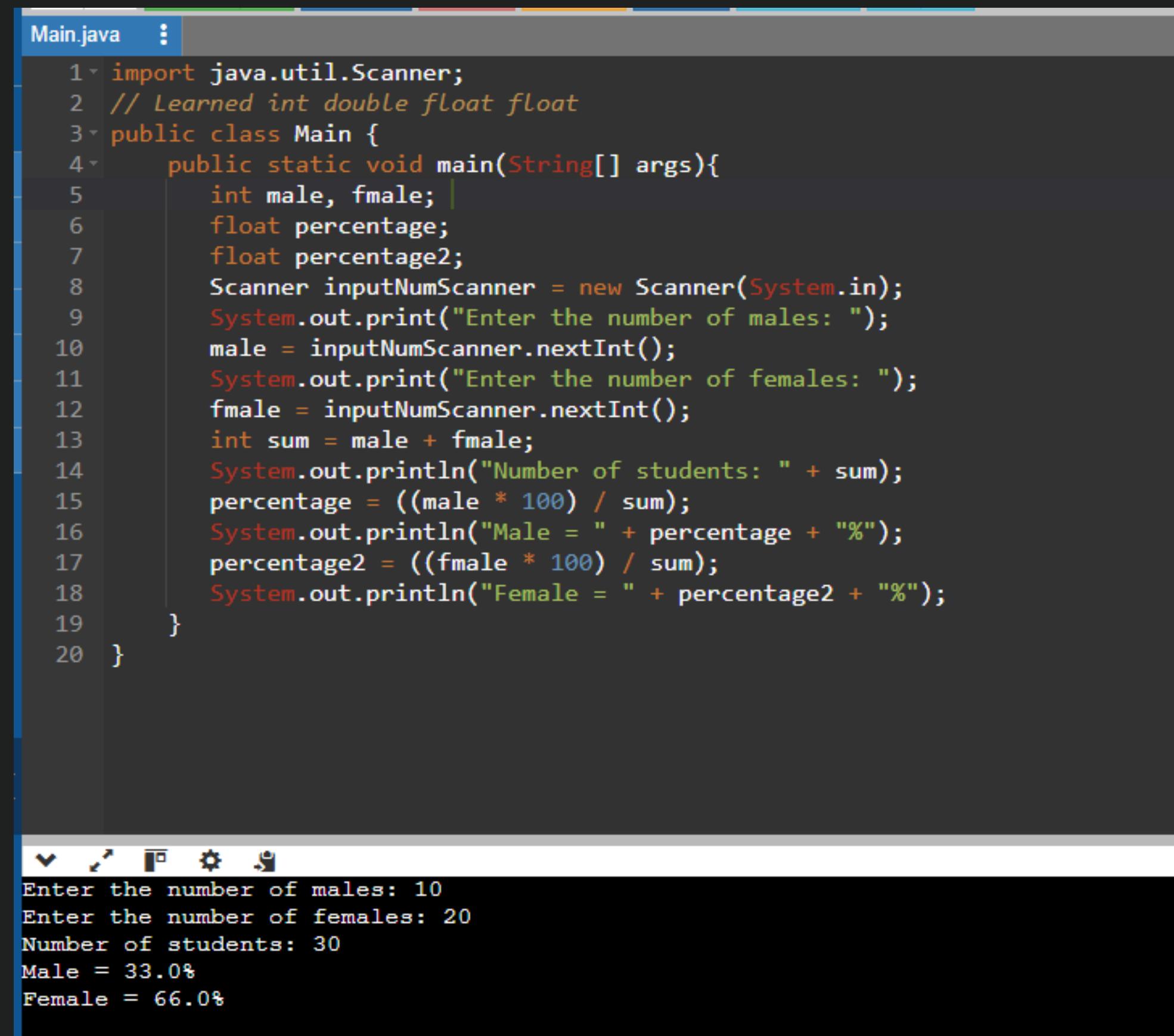
	input
Employee name:	Johnrich A Tamano
Gross pay:	25000.0
Deductions	Amount
Withholding Tax:	3750.0
SSS Contribution:	907.5
Medicare:	312.5
Pag-IBIG Contribution:	100.0
Net Pay:	19930.0

...Program finished with exit code 0
Press ENTER to exit console.

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Java Fundamentals
Scanner
Homework



The image shows a Java code editor with a dark theme. The file being edited is named `Main.java`. The code itself is as follows:

```
1 import java.util.Scanner;
2 // Learned int double float float
3 public class Main {
4     public static void main(String[] args){
5         int male, female;
6         float percentage;
7         float percentage2;
8         Scanner inputNumScanner = new Scanner(System.in);
9         System.out.print("Enter the number of males: ");
10        male = inputNumScanner.nextInt();
11        System.out.print("Enter the number of females: ");
12        female = inputNumScanner.nextInt();
13        int sum = male + female;
14        System.out.println("Number of students: " + sum);
15        percentage = ((male * 100) / sum);
16        System.out.println("Male = " + percentage + "%");
17        percentage2 = ((female * 100) / sum);
18        System.out.println("Female = " + percentage2 + "%");
19    }
20 }
```

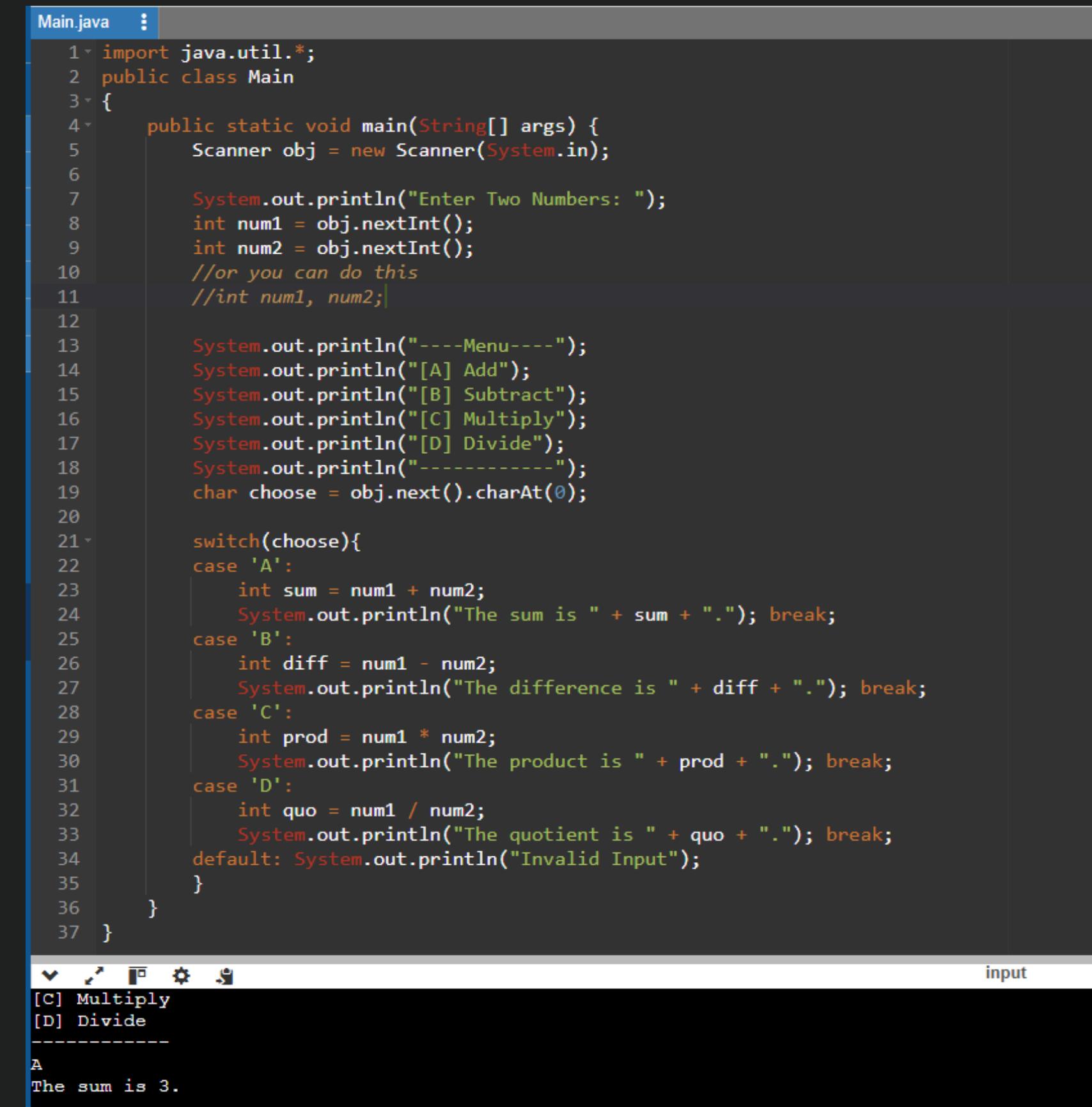
Below the code editor is a terminal window showing the execution of the program. The user enters the number of males (10) and females (20), and the program calculates the total number of students (30) and the percentage of males (33.0%) and females (66.0%).

```
Enter the number of males: 10
Enter the number of females: 20
Number of students: 30
Male = 33.0%
Female = 66.0%
```

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1st Year

Java Fundamentals
Switch
Homework



The screenshot shows a Java code editor with a dark theme. The file is named Main.java. The code implements a menu-driven application that performs addition, subtraction, multiplication, or division based on user input. The user can choose from options A, B, C, or D. Option A adds the two numbers, B subtracts them, C multiplies them, and D divides them. An invalid input option is also provided. The code uses a Scanner object to read input from the console.

```
Main.java ::

1 import java.util.*;
2 public class Main
3 {
4     public static void main(String[] args) {
5         Scanner obj = new Scanner(System.in);
6
7         System.out.println("Enter Two Numbers: ");
8         int num1 = obj.nextInt();
9         int num2 = obj.nextInt();
10        //or you can do this
11        //int num1, num2;
12
13        System.out.println("----Menu----");
14        System.out.println("[A] Add");
15        System.out.println("[B] Subtract");
16        System.out.println("[C] Multiply");
17        System.out.println("[D] Divide");
18        System.out.println("-----");
19        char choose = obj.next().charAt(0);
20
21        switch(choose){
22            case 'A':
23                int sum = num1 + num2;
24                System.out.println("The sum is " + sum + ".");
25            case 'B':
26                int diff = num1 - num2;
27                System.out.println("The difference is " + diff + ".");
28            case 'C':
29                int prod = num1 * num2;
30                System.out.println("The product is " + prod + ".");
31            case 'D':
32                int quo = num1 / num2;
33                System.out.println("The quotient is " + quo + ".");
34            default: System.out.println("Invalid Input");
35        }
36    }
37 }
```

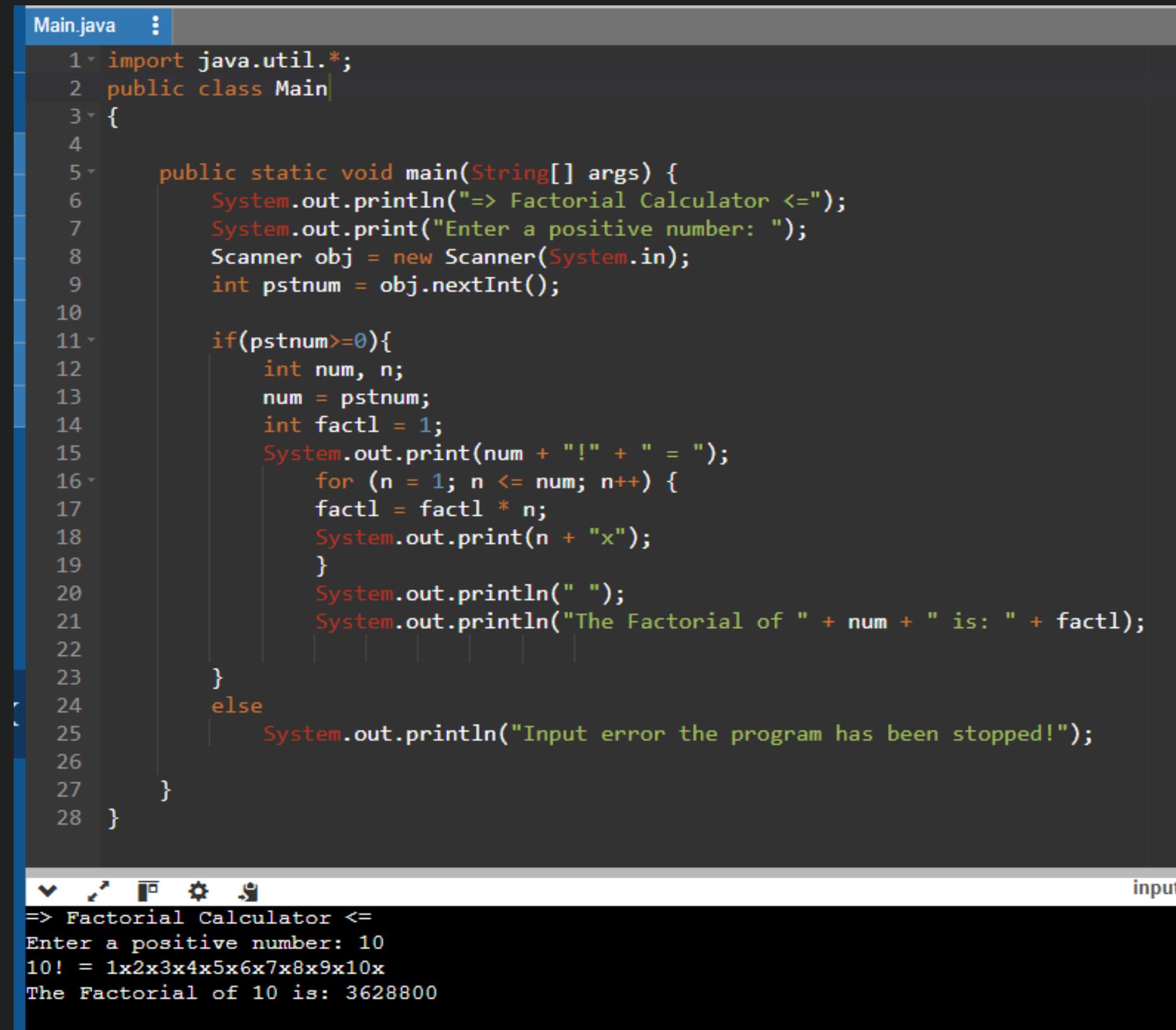
The terminal window below the code shows the application's output. It displays the menu options [A] through [D]. When 'A' is selected, it prints 'The sum is 3.'.

```
[C] Multiply
[D] Divide
-----
A
The sum is 3.
```

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Java Fundamentals
Looping
Homework



The image shows a Java code editor window titled "Main.java". The code implements a factorial calculator. It prompts the user for a positive integer, calculates the factorial using a for loop, and prints the result. If the input is not positive, it prints an error message. The output window below shows the program's execution and the resulting factorial value.

```
Main.java : Main.java
1 import java.util.*;
2 public class Main{
3 {
4
5     public static void main(String[] args) {
6         System.out.println("=> Factorial Calculator <=");
7         System.out.print("Enter a positive number: ");
8         Scanner obj = new Scanner(System.in);
9         int ptnum = obj.nextInt();
10
11        if(ptnum>=0){
12            int num, n;
13            num = ptnum;
14            int factl = 1;
15            System.out.print(num + "!" + " = ");
16            for (n = 1; n <= num; n++) {
17                factl = factl * n;
18                System.out.print(n + "x");
19            }
20            System.out.println(" ");
21            System.out.println("The Factorial of " + num + " is: " + factl);
22        }
23        else
24            System.out.println("Input error the program has been stopped!");
25    }
26
27 }
28 }
```

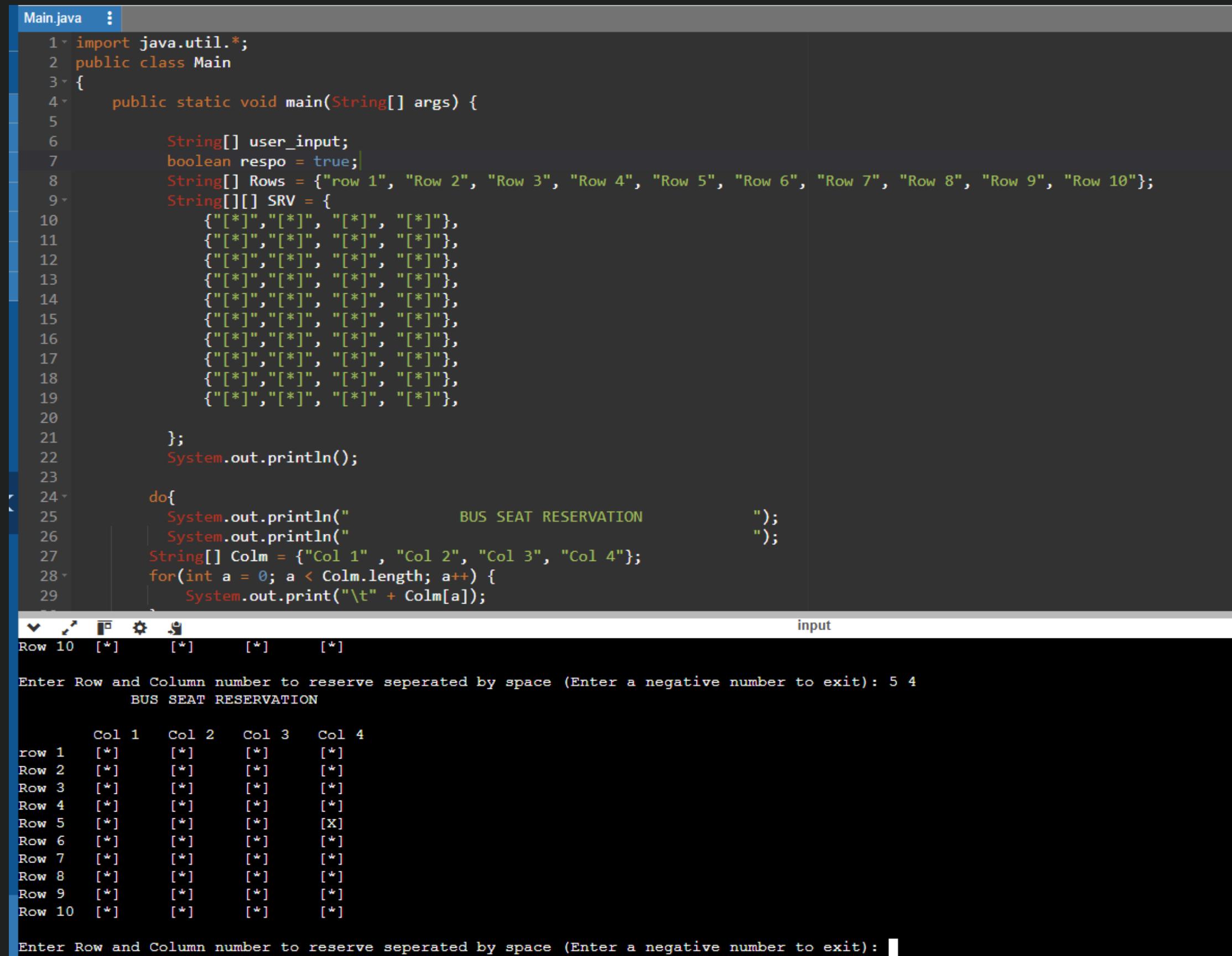
input

```
=> Factorial Calculator <=
Enter a positive number: 10
10! = 1x2x3x4x5x6x7x8x9x10x
The Factorial of 10 is: 3628800
```

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1st Year

Java Fundamentals
Array Bus Reservation
Project



The screenshot shows a Java IDE interface with a code editor and a terminal window.

Code Editor (Main.java):

```
1 import java.util.*;
2 public class Main
3 {
4     public static void main(String[] args) {
5
6         String[] user_input;
7         boolean respo = true;
8         String[] Rows = {"Row 1", "Row 2", "Row 3", "Row 4", "Row 5", "Row 6", "Row 7", "Row 8", "Row 9", "Row 10"};
9         String[][] SRV = {
10             {"[*]", "[*]", "[*]", "[*"]},
11             {"[*]", "[*]", "[*]", "[*"]},
12             {"[*]", "[*]", "[*]", "[*"]},
13             {"[*]", "[*]", "[*]", "[*"]},
14             {"[*]", "[*]", "[*]", "[*"]},
15             {"[*]", "[*]", "[*]", "[*"]},
16             {"[*]", "[*]", "[*]", "[*"]},
17             {"[*]", "[*]", "[*]", "[*"]},
18             {"[*]", "[*]", "[*]", "[*"]},
19             {"[*]", "[*]", "[*]", "[*"]},
20
21         };
22         System.out.println();
23
24         do{
25             System.out.println("          BUS SEAT RESERVATION          ");
26             System.out.println("          ");
27             String[] Colm = {"Col 1", "Col 2", "Col 3", "Col 4"};
28             for(int a = 0; a < Colm.length; a++) {
29                 System.out.print("\t" + Colm[a]);
30             }
31
32             System.out.println();
33             System.out.println("Row 10 [*] [*] [*] [*]");
34
35             System.out.println("Enter Row and Column number to reserve seperated by space (Enter a negative number to exit): 5 4");
36             System.out.println("          BUS SEAT RESERVATION          ");
37
38             for(int i = 0; i < Rows.length; i++) {
39                 for(int j = 0; j < SRV[i].length; j++) {
40                     if(i == 5 & j == 3) {
41                         System.out.print("      Col 1   Col 2   Col 3   Col 4      ");
42                         System.out.print("      [*]   [*]   [*]   [*]      ");
43                         System.out.print("      [*]   [*]   [*]   [X]      ");
44                         System.out.print("      [*]   [*]   [*]   [*]      ");
45                         System.out.print("      [*]   [*]   [*]   [*]      ");
46                         System.out.print("      [*]   [*]   [*]   [*]      ");
47                         System.out.print("      [*]   [*]   [*]   [*]      ");
48                         System.out.print("      [*]   [*]   [*]   [*]      ");
49                         System.out.print("      [*]   [*]   [*]   [*]      ");
50                         System.out.print("      [*]   [*]   [*]   [*]      ");
51                     } else {
52                         System.out.print("      [*]   [*]   [*]   [*]      ");
53                     }
54                 }
55             }
56
57             System.out.println("Enter Row and Column number to reserve seperated by space (Enter a negative number to exit): ");
58         }
59     }
60 }
```

Terminal Window:

```
Row 10 [*] [*] [*] [*]

Enter Row and Column number to reserve seperated by space (Enter a negative number to exit): 5 4
          BUS SEAT RESERVATION         

          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      
          [*]   [*]   [*]   [*]      

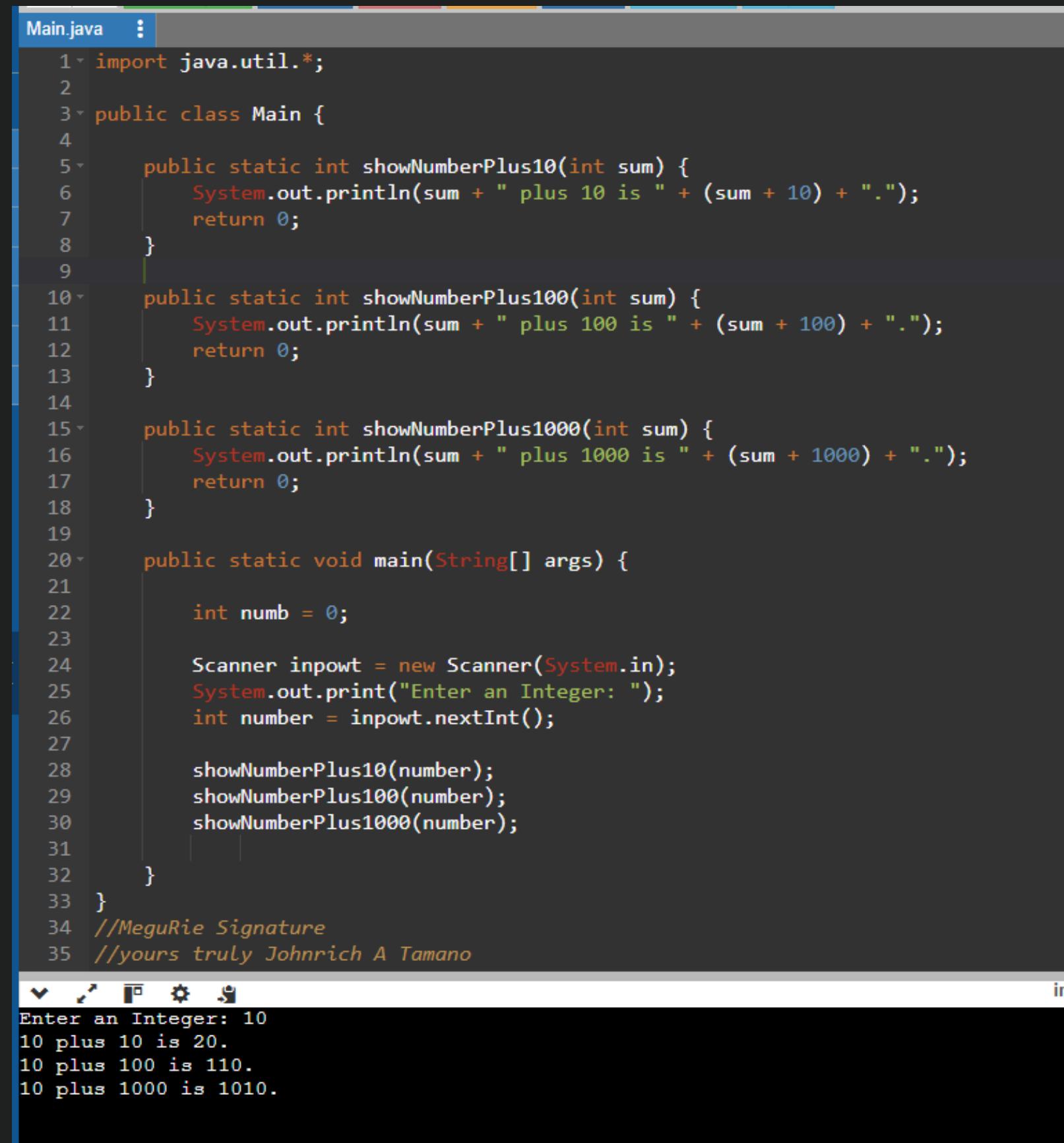
          Col 1   Col 2   Col 3   Col 4      
row 1   [*]   [*]   [*]   [*]      
Row 2   [*]   [*]   [*]   [*]      
Row 3   [*]   [*]   [*]   [*]      
Row 4   [*]   [*]   [*]   [*]      
Row 5   [*]   [*]   [*]   [X]      
Row 6   [*]   [*]   [*]   [*]      
Row 7   [*]   [*]   [*]   [*]      
Row 8   [*]   [*]   [*]   [*]      
Row 9   [*]   [*]   [*]   [*]      
Row 10  [*]   [*]   [*]   [*]      

Enter Row and Column number to reserve seperated by space (Enter a negative number to exit): 
```

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1st Year

Java Fundamentals
Object Oriented
Homework



The screenshot shows a Java code editor with a dark theme. The file is named Main.java. The code defines a Main class with three static methods: showNumberPlus10, showNumberPlus100, and showNumberPlus1000. It also contains a main method that reads an integer from standard input and calls the three methods. The output window shows the results of running the program with the input '10'.

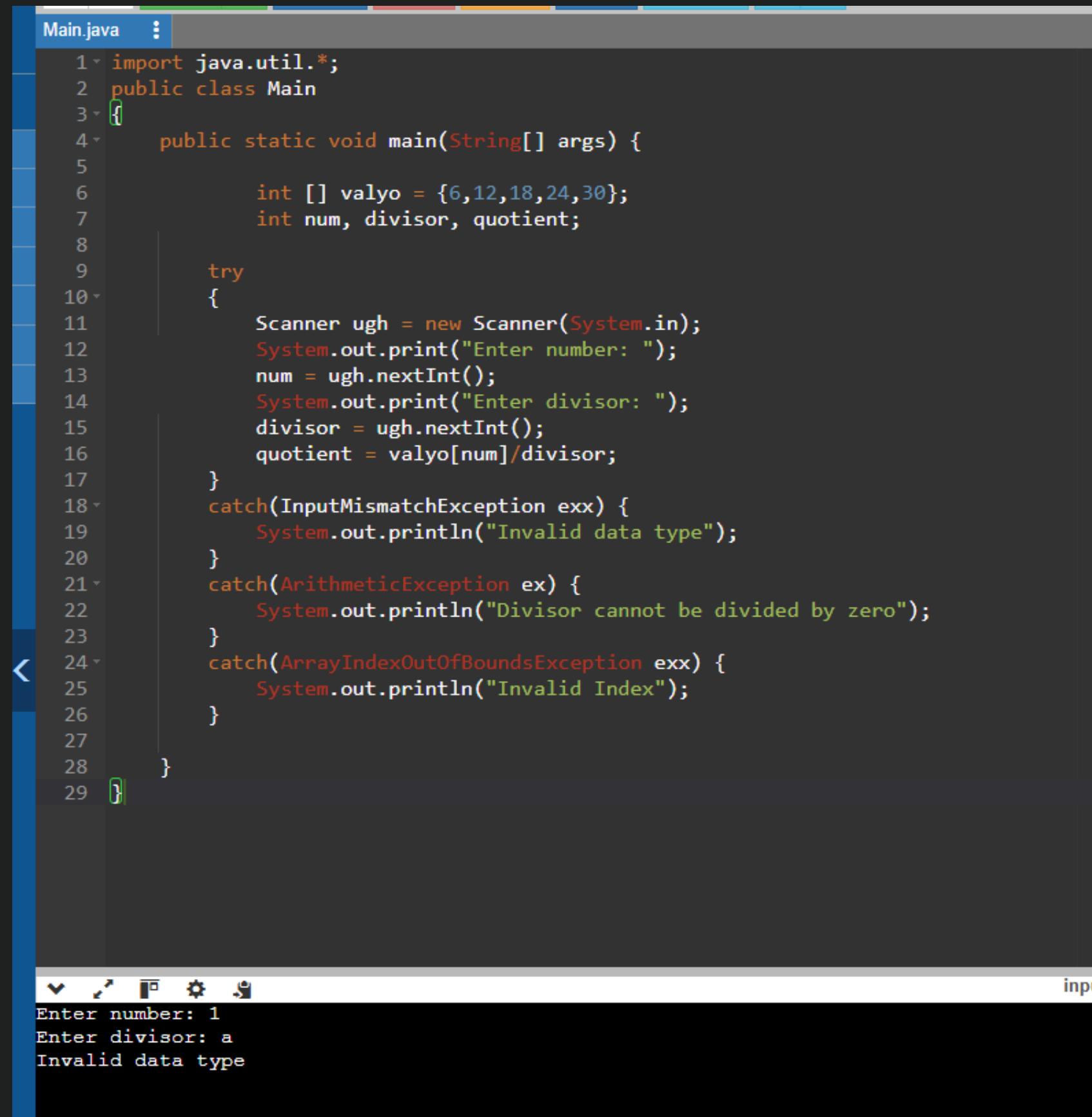
```
Main.java
1 import java.util.*;
2
3 public class Main {
4
5     public static int showNumberPlus10(int sum) {
6         System.out.println(sum + " plus 10 is " + (sum + 10) + ".");
7         return 0;
8     }
9
10    public static int showNumberPlus100(int sum) {
11        System.out.println(sum + " plus 100 is " + (sum + 100) + ".");
12        return 0;
13    }
14
15    public static int showNumberPlus1000(int sum) {
16        System.out.println(sum + " plus 1000 is " + (sum + 1000) + ".");
17        return 0;
18    }
19
20    public static void main(String[] args) {
21        int numb = 0;
22
23        Scanner inpowt = new Scanner(System.in);
24        System.out.print("Enter an Integer: ");
25        int number = inpowt.nextInt();
26
27        showNumberPlus10(number);
28        showNumberPlus100(number);
29        showNumberPlus1000(number);
30
31    }
32}
33
34 //MeguRie Signature
35 //yours truly Johnrich A Tamano
```

Enter an Integer: 10
10 plus 10 is 20.
10 plus 100 is 110.
10 plus 1000 is 1010.

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1st Year

Java Fundamentals
Try, Catch Statements
Homework



The screenshot shows a Java code editor with a dark theme. The file is named Main.java. The code demonstrates a try-catch block for handling exceptions. It attempts to read two integers from the user: 'num' and 'divisor'. If 'divisor' is zero, it prints an error message. If the input is not a valid integer, it prints an error message. An array 'valyo' is also declared and initialized.

```
Main.java :  
1 import java.util.*;  
2 public class Main  
3 {  
4     public static void main(String[] args) {  
5         int [] valyo = {6,12,18,24,30};  
6         int num, divisor, quotient;  
7  
8         try  
9         {  
10             Scanner ugh = new Scanner(System.in);  
11             System.out.print("Enter number: ");  
12             num = ugh.nextInt();  
13             System.out.print("Enter divisor: ");  
14             divisor = ugh.nextInt();  
15             quotient = valyo[num]/divisor;  
16         }  
17         catch(InputMismatchException exx) {  
18             System.out.println("Invalid data type");  
19         }  
20         catch(ArithmeticException ex) {  
21             System.out.println("Divisor cannot be divided by zero");  
22         }  
23         catch(ArrayIndexOutOfBoundsException exx) {  
24             System.out.println("Invalid Index");  
25         }  
26     }  
27 }  
28 }  
29 }
```

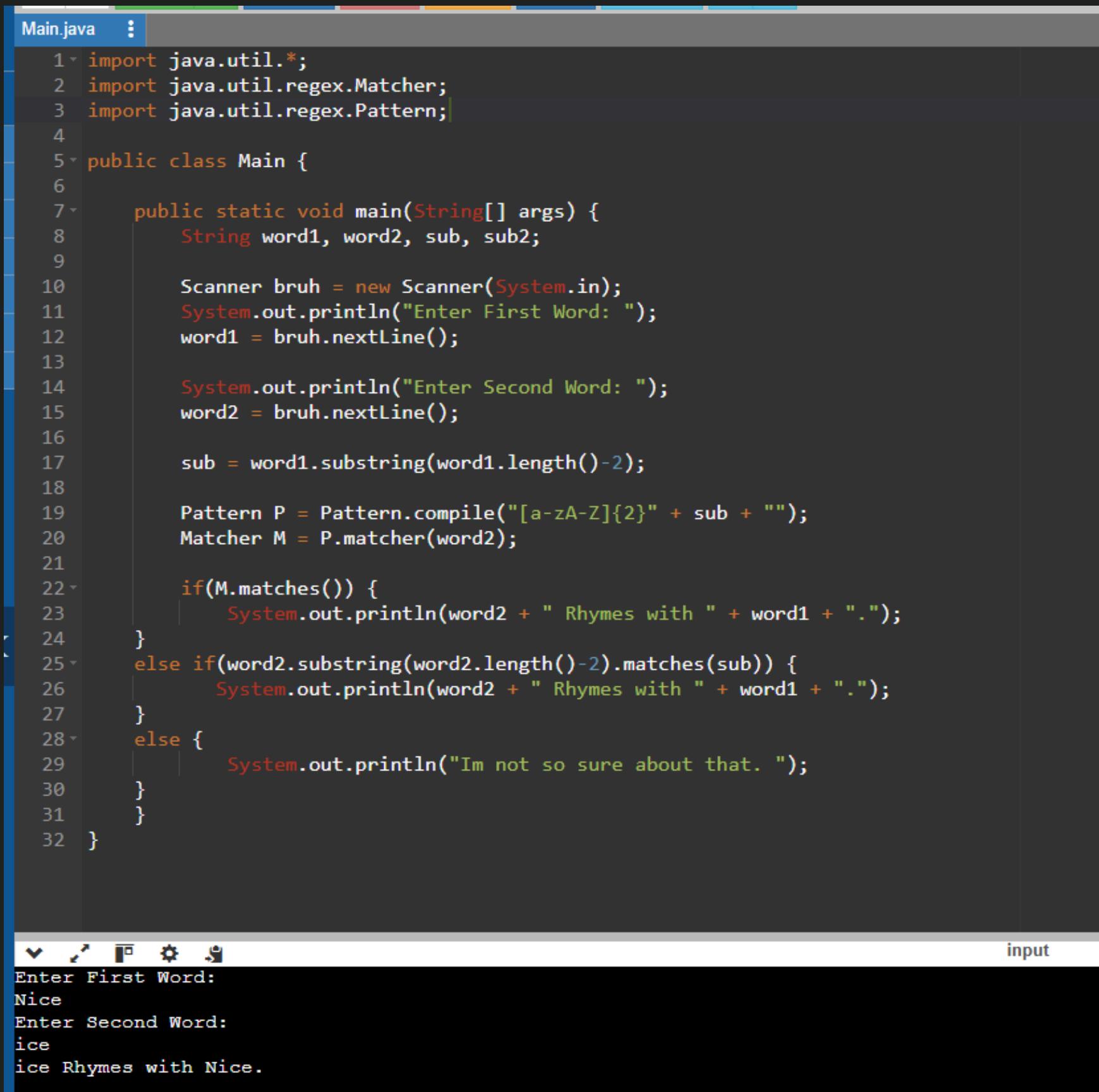
The terminal window below shows the execution of the program. The user enters '1' for the number and 'a' for the divisor, which results in the message 'Invalid data type'.

```
Enter number: 1  
Enter divisor: a  
Invalid data type
```

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1st Year

Java Fundamentals
Enumerations
Homework



The screenshot shows a Java IDE interface with a code editor and a terminal window.

Code Editor: The file is named Main.java. The code implements a program to check if two words rhyme based on their last two letters. It uses Scanner to read input from the user and Pattern/Matcher to perform regex matching.

```
Main.java : 1 import java.util.*; 2 import java.util.regex.Matcher; 3 import java.util.regex.Pattern; 4 5 public class Main { 6 7     public static void main(String[] args) { 8         String word1, word2, sub, sub2; 9 10        Scanner bruh = new Scanner(System.in); 11        System.out.println("Enter First Word: "); 12        word1 = bruh.nextLine(); 13 14        System.out.println("Enter Second Word: "); 15        word2 = bruh.nextLine(); 16 17        sub = word1.substring(word1.length()-2); 18 19        Pattern P = Pattern.compile("[a-zA-Z]{2}" + sub + ""); 20        Matcher M = P.matcher(word2); 21 22        if(M.matches()) { 23            System.out.println(word2 + " Rhymes with " + word1 + "."); 24        } 25        else if(word2.substring(word2.length()-2).matches(sub)) { 26            System.out.println(word2 + " Rhymes with " + word1 + "."); 27        } 28        else { 29            System.out.println("Im not so sure about that. "); 30        } 31    } 32 }
```

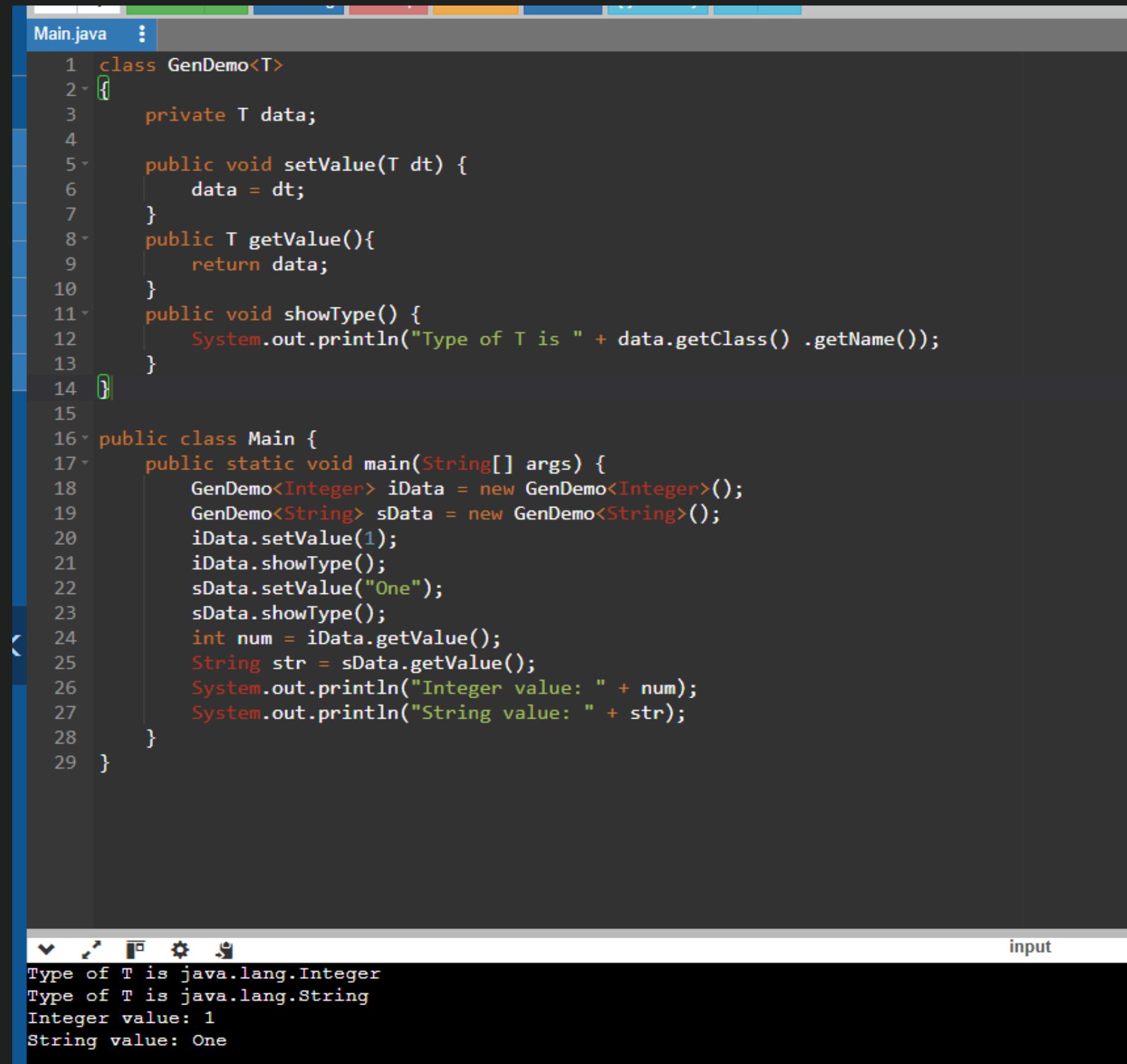
Terminal Window: The terminal shows the execution of the program. The user enters "Nice" as the first word and "ice" as the second word. The output indicates that "ice" rhymes with "Nice".

```
Enter First Word:  
Nice  
Enter Second Word:  
ice  
ice Rhymes with Nice.
```

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1st Year

Java Fundamentals
Concurrency
Homework



The screenshot shows a Java code editor with a dark theme. The code in `Main.java` defines a generic class `GenDemo<T>` with methods for setting and getting values, and showing the type. It also contains a `Main` class with a `main` method that creates instances of `GenDemo<Integer>` and `GenDemo<String>`, sets values, and prints them. The output window at the bottom shows the printed results.

```
Main.java : Main.java
1  class GenDemo<T>
2  {
3      private T data;
4
5      public void setValue(T dt) {
6          data = dt;
7      }
8      public T getValue(){
9          return data;
10     }
11     public void showType() {
12         System.out.println("Type of T is " + data.getClass() .getName());
13     }
14 }
15
16 public class Main {
17     public static void main(String[] args) {
18         GenDemo<Integer> iData = new GenDemo<Integer>();
19         GenDemo<String> sData = new GenDemo<String>();
20         iData.setValue(1);
21         iData.showType();
22         sData.setValue("One");
23         sData.showType();
24         int num = iData.getValue();
25         String str = sData.getValue();
26         System.out.println("Integer value: " + num);
27         System.out.println("String value: " + str);
28     }
29 }
```

input

```
Type of T is java.lang.Integer
Type of T is java.lang.String
Integer value: 1
String value: One
```

E-Portfolio

1st Year

Java Fundamentals
Basic Coding
Homework

The screenshot shows a Java IDE interface with two main panes. The top pane displays the code for a Java program named Main.java. The code uses a Scanner object to read input from the user and prints classmate names to the console. The bottom pane shows the terminal window where the program is run, displaying the interaction between the user and the program.

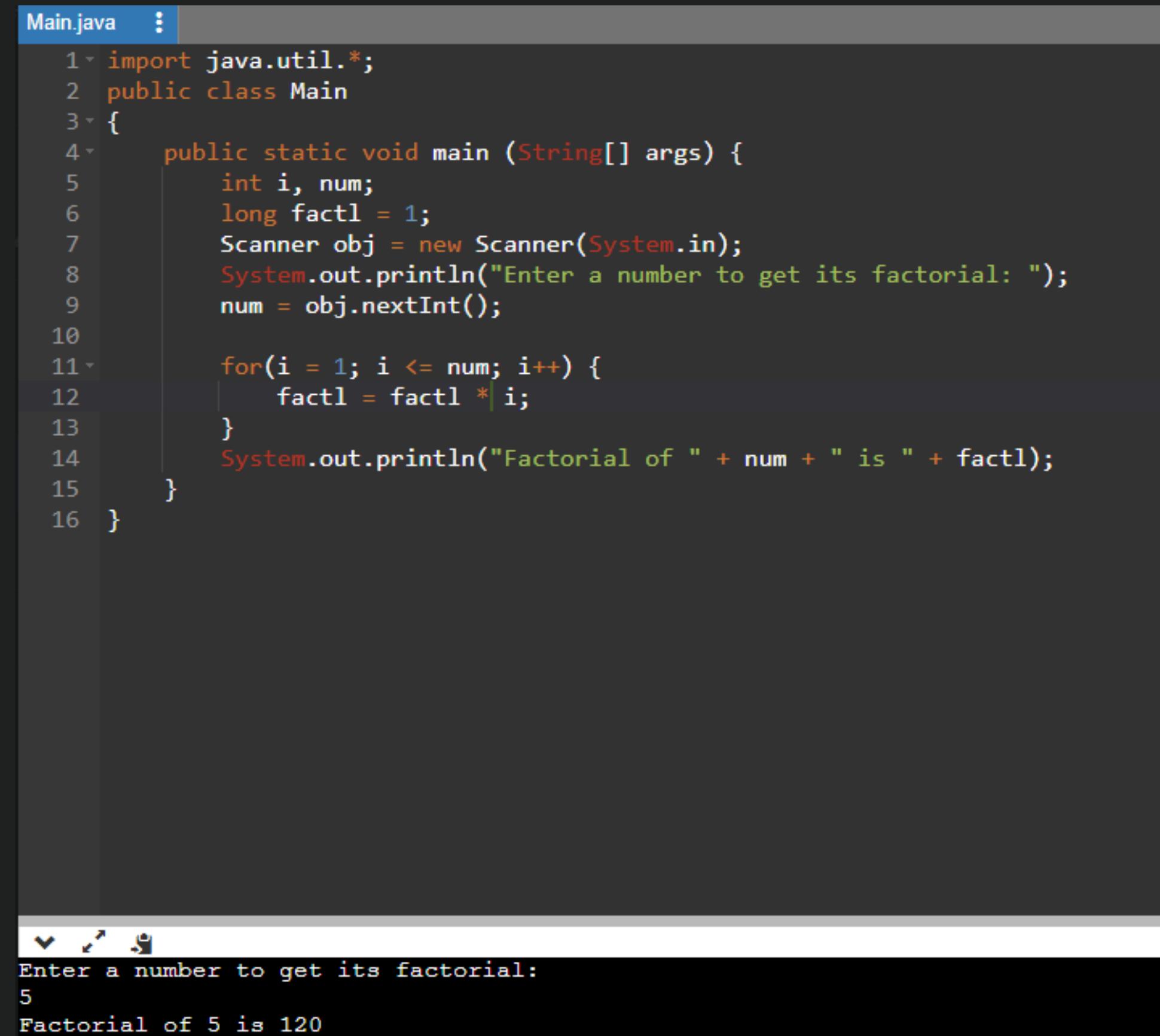
```
Main.java : 
1 import java.util.*;
2 public class Main
3 {
4     public static void main (String[] args) {
5         Scanner obj = new Scanner(System.in);
6         String Classmates[];
7         int counter = 0;
8         while(true){
9             System.out.println("Enter Classmate: ");
10            String Classmate = obj.nextLine();
11            System.out.println("Do you wish to enter desired name? Yes or No");
12            System.out.print("");
13            String action = obj.nextLine().toLowerCase();
14            counter += 1;
15            if (action.equals("yes")){
16                System.out.println("Classmates #" + counter + ": " + Classmate);
17                continue;
18            }
19            else if (action.equals("no")){
20                break;
21            }
22            else {
23                System.out.println("Invalid Input");
24                continue;
25            }
26        }
27    }
28 }
```

```
Enter Classmate:
Shawn
Do you wish to enter desired name? Yes or No
Yes
Classmates #1: Shawn
Enter Classmate:
Edyzon
Do you wish to enter desired name? Yes or No
YES
Classmates #2: Edyzon
Enter Classmate:
Johnrich
Do you wish to enter desired name? Yes or No
YES
Classmates #3: Johnrich
Enter Classmate:
semine
Do you wish to enter desired name? Yes or No
no
```

E-Portfolio

1st Year

Java Fundamentals
Recursion
Homework



The screenshot shows a Java code editor with a dark theme. The file is named Main.java. The code implements a factorial calculator using a for loop. The user is prompted to enter a number, and the program outputs the factorial of that number.

```
Main.java : 1 import java.util.*; 2 public class Main { 3     public static void main (String[] args) { 4         int i, num; 5         long factl = 1; 6         Scanner obj = new Scanner(System.in); 7         System.out.println("Enter a number to get its factorial: "); 8         num = obj.nextInt(); 9      } 10        for(i = 1; i <= num; i++) { 11            factl = factl * i; 12        } 13        System.out.println("Factorial of " + num + " is " + factl); 14    } 15 } 16 }
```

Output window:

```
Enter a number to get its factorial: 5 Factorial of 5 is 120
```

E-Portfolio

1st Year

Java Fundamentals
Stacks
Homework

The screenshot shows a Java code editor with a dark theme. The file being edited is `Main.java`. The code creates a stack of names and prints them out. The terminal window below shows the execution of the program.

```
Main.java  ::

1 import java.util.*;
2 public class Main {
3     public static void main(String[] args) {
4         Stack STAK = new Stack();
5         STAK.push("Kirito");
6         STAK.push("Eugeo");
7         STAK.push("Alice");
8         STAK.push("Asuna");
9         STAK.push("Suguha");
10
11        for(int i=0; i<STAK.size(); i++){
12            System.out.print(STAK.get(i) + "\t");
13        }
14
15        System.out.println("");
16        System.out.println(STAK);
17        System.out.println(STAK.peek());
18        STAK.pop();
19        System.out.println(STAK.peek());
20        System.out.println(STAK);
21
22        //STAK.push("Alice"); just like append
23        //System.out.print(STAK.peek()); displays the last element
24        //STAK.pop(); // remove the last element
25        //System.out.print(STAK.get()); Get the specified element you put inside the get are the indexes
26
27        //System.out.print(STAK); if you want to display all values
28    }
29 }
```

Terminal Output:

```
Kirito  Eugeo  Alice  Asuna  Suguha
[Kirito, Eugeo, Alice, Asuna, Suguha]
Suguha
Asuna
[Kirito, Eugeo, Alice, Asuna]
```

E-Portfolio

1st Year

Java Fundamentals
Queues
Homework

The screenshot shows a Java code editor with a dark theme. The file is named Main.java. The code demonstrates the use of Queue and List interfaces from the java.util package. It creates a linked list queue, adds three elements ('Selka', 'Ronye', 'Tiese'), and then prints its contents. It then prints '[Methods]' and uses peek() and poll() methods. It calculates the size and clears the queue. Finally, it reverses the queue and adds it back to itself. The output window shows the printed results: the initial queue, the reversed queue, and the fact that it is empty.

```
Main.java
1 import java.util.*;
2 public class Main {
3     public static void main(String[] args) {
4         Queue que = new LinkedList();
5         que.offer("Selka");
6         que.offer("Ronye");
7         que.offer("Tiese");
8         List que2 = new LinkedList(que);
9
10        System.out.println("");
11        System.out.println("[Loop]");
12        for(Object name : que){
13            System.out.print(name + "\t");
14        }
15        System.out.println("");
16        System.out.println("[Methods]");
17        System.out.println(que);
18        System.out.println(que.peek());
19        que.poll();
20        System.out.println(que.peek());
21        System.out.println(que);
22
23        que.size();
24        que.clear();
25        System.out.println("is Empty: " + que.isEmpty());
26
27        System.out.println("");
28        System.out.println("[Reversed]");
29
30        Collections.reverse(que2);
31        que.clear();
32        que.addAll(que2);
33        System.out.print(que);
34
35        // for(int item : que){ Integer
36        // }
37        // for(Object item : que){ Object }
```

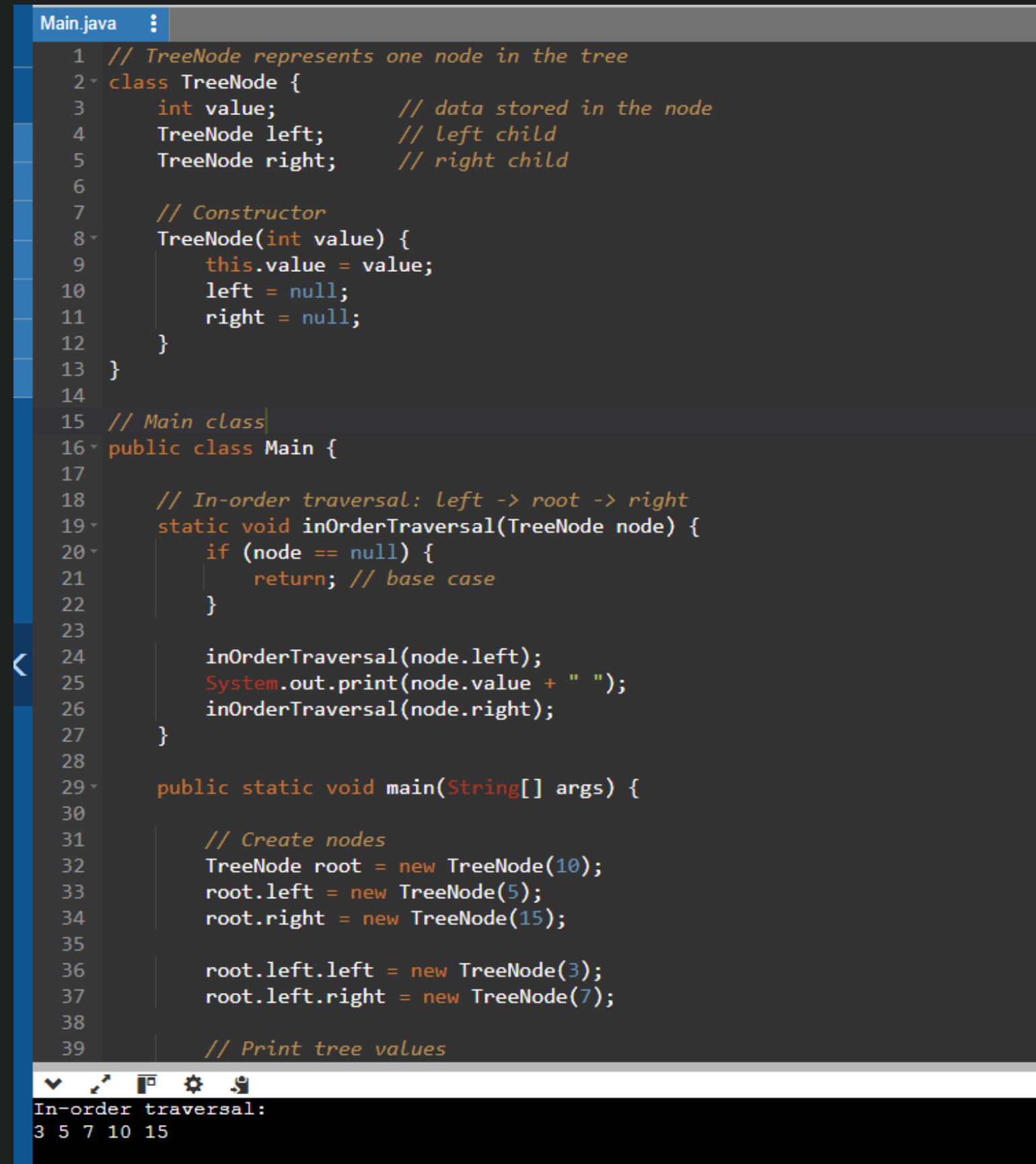
Selka
Ronye
[Ronye, Tiese]
is Empty: true

[Reversed]
[Tiese, Ronye, Selka]

E-Portfolio

1st Year

Java Fundamentals
Tree
Homework



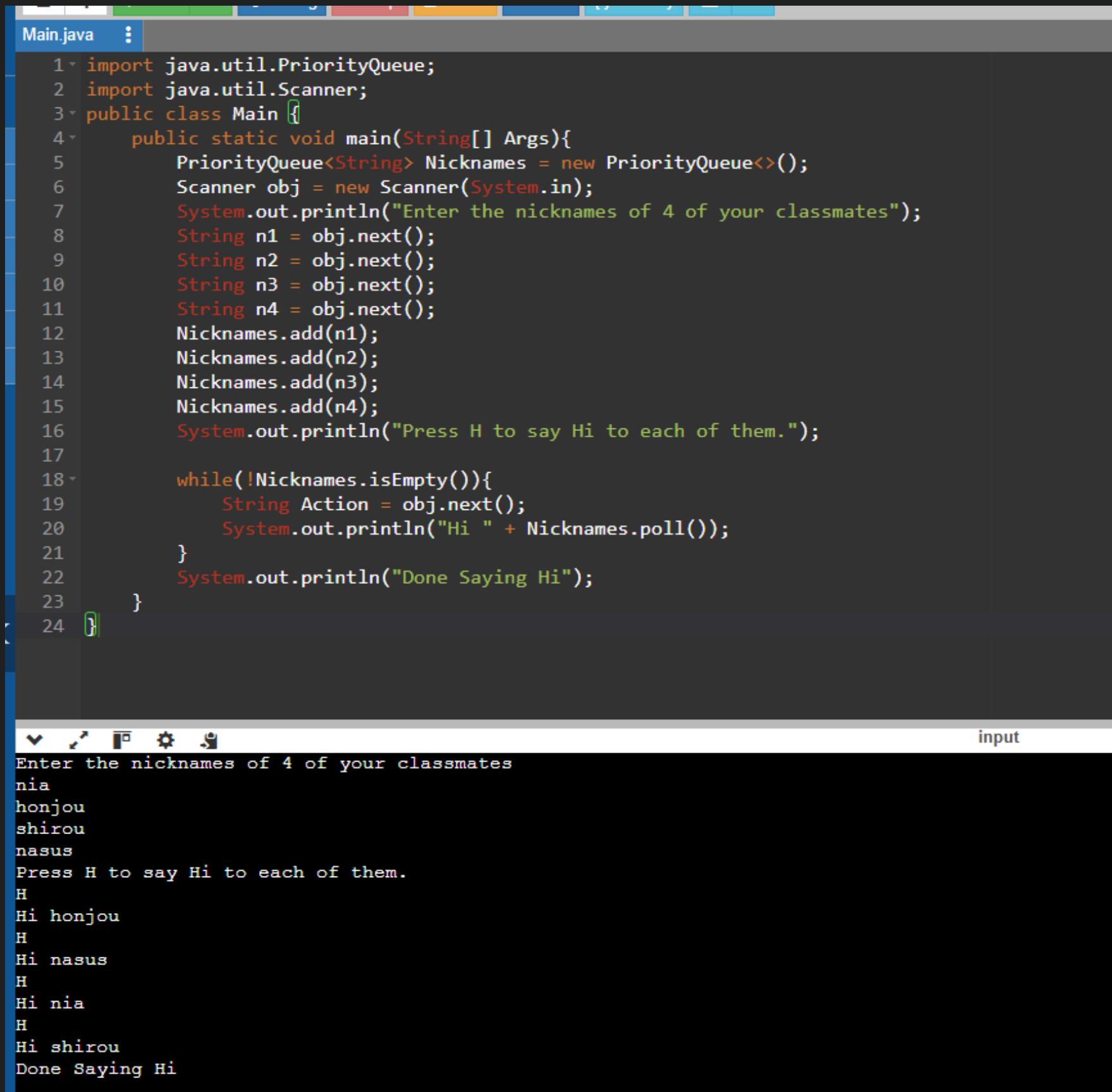
The screenshot shows a Java code editor with a dark theme. The file is named Main.java. The code defines a TreeNode class with a value and two children, and a Main class with an inOrderTraversal method. It also creates nodes and prints their values. The terminal window at the bottom shows the output of the in-order traversal.

```
Main.java : 1 // TreeNode represents one node in the tree
2 class TreeNode {
3     int value;          // data stored in the node
4     TreeNode left;      // left child
5     TreeNode right;     // right child
6
7     // Constructor
8     TreeNode(int value) {
9         this.value = value;
10        left = null;
11        right = null;
12    }
13 }
14
15 // Main class
16 public class Main {
17
18     // In-order traversal: left -> root -> right
19     static void inOrderTraversal(TreeNode node) {
20         if (node == null) {
21             return; // base case
22         }
23
24         inOrderTraversal(node.left);
25         System.out.print(node.value + " ");
26         inOrderTraversal(node.right);
27     }
28
29     public static void main(String[] args) {
30
31         // Create nodes
32         TreeNode root = new TreeNode(10);
33         root.left = new TreeNode(5);
34         root.right = new TreeNode(15);
35
36         root.left.left = new TreeNode(3);
37         root.left.right = new TreeNode(7);
38
39         // Print tree values
}
In-order traversal:
3 5 7 10 15
```

E-Portfolio

1st Year

Java Fundamentals
Heaps
Homework



The screenshot shows a Java development environment with two main windows. The top window is a code editor titled "Main.java" containing the following Java code:

```
1 import java.util.PriorityQueue;
2 import java.util.Scanner;
3 public class Main {
4     public static void main(String[] Args){
5         PriorityQueue<String> Nicknames = new PriorityQueue<>();
6         Scanner obj = new Scanner(System.in);
7         System.out.println("Enter the nicknames of 4 of your classmates");
8         String n1 = obj.next();
9         String n2 = obj.next();
10        String n3 = obj.next();
11        String n4 = obj.next();
12        Nicknames.add(n1);
13        Nicknames.add(n2);
14        Nicknames.add(n3);
15        Nicknames.add(n4);
16        System.out.println("Press H to say Hi to each of them.");
17
18        while(!Nicknames.isEmpty()){
19            String Action = obj.next();
20            System.out.println("Hi " + Nicknames.poll());
21        }
22        System.out.println("Done Saying Hi");
23    }
24 }
```

The bottom window is a terminal window titled "input" showing the execution of the program. It prompts the user to enter four nicknames, which are then added to a priority queue. The user then presses 'H' four times to print "Hi" followed by each nickname in ascending order of priority.

```
Enter the nicknames of 4 of your classmates
nia
honjou
shirou
nasus
Press H to say Hi to each of them.
H
Hi honjou
H
Hi nasus
H
Hi nia
H
Hi shirou
Done Saying Hi
```

E-Portfolio

1st Year

Java Fundamentals
Sets and Maps
Homework

The screenshot shows a Java code editor with a dark theme. The file is named Main.java. The code uses Scanner to read input from System.in, creates three HashSet objects (g1, g2, self), and groups birth months into two sets based on their index. The output window shows the user input and the resulting groupings.

```
Main.java ::
```

```
1 //yoko isahan import asterisk na para lahat ng utilities
2 import java.util.*;
3
4 public class Main {
5     public static void main(String[] args) {
6         Scanner obj = new Scanner(System.in);
7         Set g1 = new HashSet();
8         Set g2 = new HashSet();
9         Set self = new HashSet();
10
11     for(int i = 1; i<=3; i++) {
12         System.out.println("Enter Birth Month " + i + ": ");
13         String bday = obj.next();
14         Collections.addAll(g1, bday);
15         Set Gbday = new HashSet(g1);
16     }
17     for(int i = 1; i<=3; i++) {
18         System.out.println("Enter Birth Month " + i + ": ");
19         String bday2 = obj.next();
20         Collections.addAll(g2, bday2);
21         Set Gbday2 = new HashSet(g2);
22     }
23     System.out.println("Group 1: " + g1);
24     System.out.println("Group 2: " + g2);
25
26     System.out.println("Enter your Birth Month: ");
27     String sbday = obj.next();
28 }
```

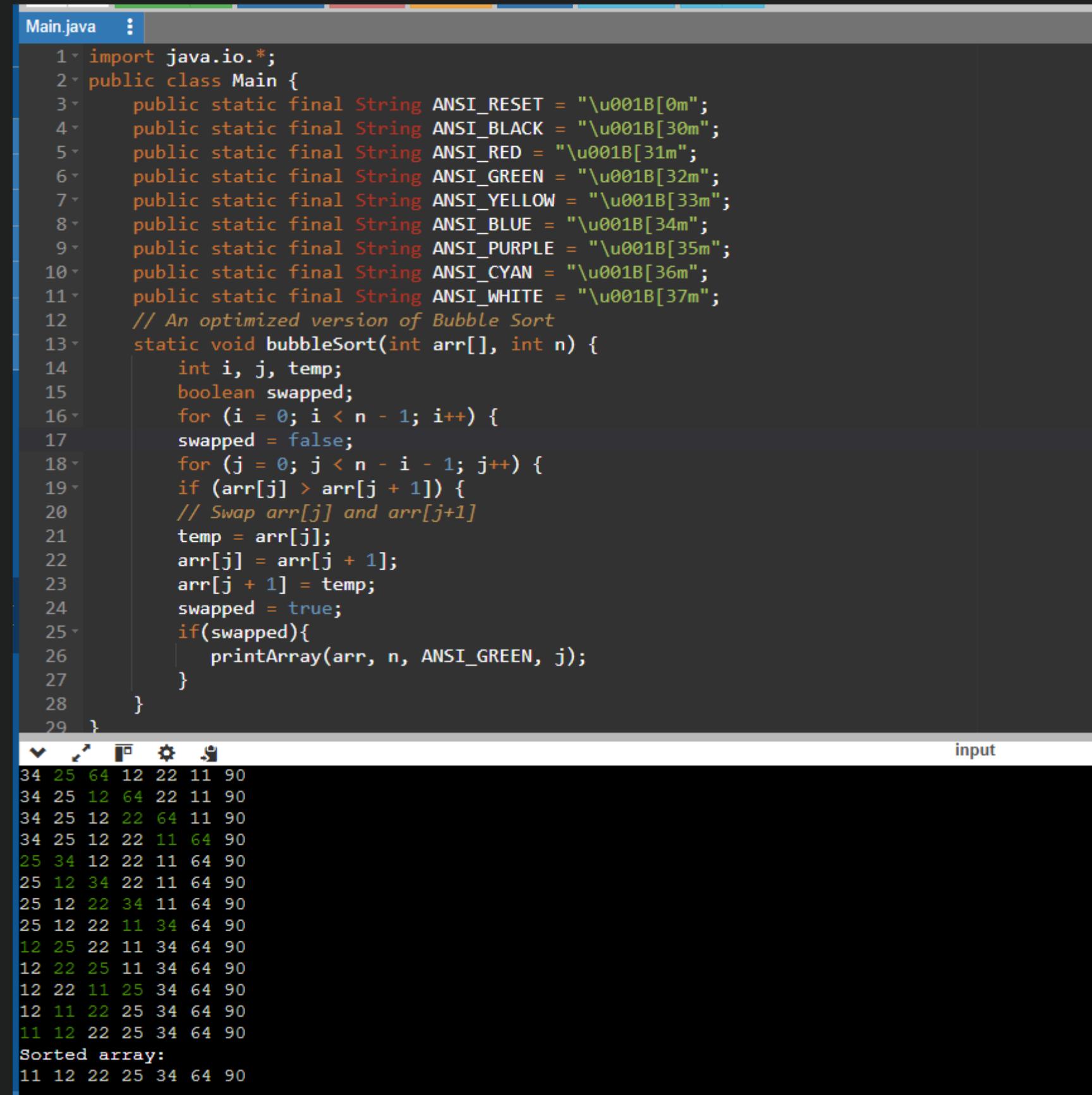
```
input
```

```
Enter Birth Month 1:
march
Enter Birth Month 2:
may
Enter Birth Month 3:
june
Enter Birth Month 1:
january
Enter Birth Month 2:
february
Enter Birth Month 3:
april
Group 1: [june, may, march]
Group 2: [april, january, february]
```

E-Portfolio

1st Year

Java Fundamentals
Sorting Algorithms
Project



The screenshot shows a Java development environment with a code editor and a terminal window.

Main.java:

```
1 import java.io.*;
2 public class Main {
3     public static final String ANSI_RESET = "\u001B[0m";
4     public static final String ANSI_BLACK = "\u001B[30m";
5     public static final String ANSI_RED = "\u001B[31m";
6     public static final String ANSI_GREEN = "\u001B[32m";
7     public static final String ANSI_YELLOW = "\u001B[33m";
8     public static final String ANSI_BLUE = "\u001B[34m";
9     public static final String ANSI_PURPLE = "\u001B[35m";
10    public static final String ANSI_CYAN = "\u001B[36m";
11    public static final String ANSI_WHITE = "\u001B[37m";
12    // An optimized version of Bubble Sort
13    static void bubbleSort(int arr[], int n) {
14        int i, j, temp;
15        boolean swapped;
16        for (i = 0; i < n - 1; i++) {
17            swapped = false;
18            for (j = 0; j < n - i - 1; j++) {
19                if (arr[j] > arr[j + 1]) {
20                    // Swap arr[j] and arr[j+1]
21                    temp = arr[j];
22                    arr[j] = arr[j + 1];
23                    arr[j + 1] = temp;
24                    swapped = true;
25                }
26                if(swapped){
27                    printArray(arr, n, ANSI_GREEN, j);
28                }
29            }
30        }
31    }
32    static void printArray(int arr[], int n, String color, int sortedIndex) {
33        for (int i = 0; i < n; i++) {
34            System.out.print(color + arr[i] + ANSI_RESET + " ");
35        }
36        System.out.println();
37    }
38    public static void main(String[] args) {
39        int arr[] = {34, 25, 64, 12, 22, 11, 90};
40        int n = arr.length;
41        bubbleSort(arr, n);
42        System.out.println("Sorted array:");
43        printArray(arr, n, ANSI_WHITE, -1);
44    }
45}
```

Terminal Output:

```
34 25 64 12 22 11 90
34 25 12 64 22 11 90
34 25 12 22 64 11 90
34 25 12 22 11 64 90
25 34 12 22 11 64 90
25 12 34 22 11 64 90
25 12 22 34 11 64 90
25 12 22 11 34 64 90
12 25 22 11 34 64 90
12 22 25 11 34 64 90
12 22 11 25 34 64 90
12 11 22 25 34 64 90
11 12 22 25 34 64 90
Sorted array:
11 12 22 25 34 64 90
```

E-Portfolio

2nd Year

The screenshot shows a web-based C# debugger interface. At the top, there are several tabs: "Integrative Programming - SY2", "INTRODUCTION TO OPERATING SYSTEMS", "Integrative Programming - SY2", "GDB online Debugger | Compile", "01_Laboratory_Exercise_1(24).pc", and "GDB online Debugger | Compile". The main area has a toolbar with "Run", "Debug", "Stop", "Share", "Save", "Beautify", and other icons. The "Language" dropdown is set to "C#". Below the toolbar is a code editor window titled "main.cs" containing the following C# code:

```
1  using System;
2  namespace GreetingApp {
3      class GreetingProgram {
4          static void Main (string[] args){
5              Console.WriteLine("Enter your name: ");
6              string name = Console.ReadLine();
7
8              Console.WriteLine("Enter the total number of your enrolled courses: ");
9              int ec = Convert.ToInt32(Console.ReadLine());
10
11             Console.WriteLine("Enter the price of your favorite book: ");
12             double price = Convert.ToDouble(Console.ReadLine());
13
14             Console.WriteLine("\n_____");
15             Console.WriteLine("Name: " + name);
16             Console.WriteLine("Total Enrolled Courses: " + ec);
17             Console.WriteLine("Price of my favorite book: $" + price);
18             Console.WriteLine("_____");
19             Console.WriteLine("Press any key to exit...");
20
21             Console.ReadKey();
22         }
23     }
24 }
```

Below the code editor is a terminal window labeled "input" showing the program's output:

```
Enter your name: bagang christian
Enter the total number of your enrolled courses: 9
Enter the price of your favorite book: 100.5

Name: bagang christian
Total Enrolled Courses: 9
Price of my favorite book: $100.5

Press any key to exit...
...Program finished with exit code 0
Press ENTER to exit console.
```

The bottom of the screen shows a Windows taskbar with icons for File Explorer, Edge, and Google Chrome. The system tray shows the date and time as 21/02/2024 at 5:50 PM.

C# Fundamentals
Net Framework
Homework

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E-Portfolio

2nd Year

The screenshot shows a web-based C# debugger interface. The code in `main.cs` is as follows:

```
1 using System;
2 namespace DTProg {
3     class P {
4         static int pa;
5         static double p;
6         static void Main (string[] args){
7             Console.WriteLine("Enter The pieces of apple: ");
8             pa = Convert.ToInt32(Console.ReadLine());
9
10            Console.WriteLine("Enter the total price of the apple: ");
11            p = Convert.ToDouble(Console.ReadLine());
12            pricing();
13        }
14        static void pricing(){
15            Console.WriteLine("Total price of " + pa + " apples: " + p);
16            Console.WriteLine("Original Price: " + p);
17            int rework = (int)(p);
18            Console.WriteLine("Converted price: " + rework);
19            last();
20        }
21        static void last(){
22            Console.WriteLine("Press any key to close...");
23            Console.ReadKey(true);
24        }
25    }
26 }
```

The console output shows the program's execution:

```
Enter The pieces of apple: 10
Enter the total price of the apple: 99.99
Total price of 10 apples: 99.99
Original Price: 99.99
Converted price: 99
Press any key to close...

...Program finished with exit code 0
Press ENTER to exit console.
```

C# Fundamentals
Data Types
Homework

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E-Portfolio

2nd Year

The screenshot shows the Microsoft Visual Studio IDE interface. The main window displays the code for a Windows application named "StudentGradeApplication". The code in Form1.cs contains logic for calculating student grades based on input from four text boxes: Name, English, Math, Science, Filipino, and History. It includes validation for empty names and invalid inputs, and calculates a general average. A message box is shown prompting the user if they are "Krazy". The output window shows no errors or warnings.

```
1 reference
private void bt1_Click(object sender, EventArgs e)
{
    string grade;
    Name = namebox.Text;
    eng = int.Parse(englishbox.Text);
    mt = int.Parse(mathbox.Text);
    sci = int.Parse(sciencebox.Text);
    fil = int.Parse(filipinobox.Text);
    h = int.Parse(historybox.Text);

    if (Name == "") {
        MessageBox.Show("Are you Krazy?");
    }
    else {
        if (eng >= 101 || mt >= 101 || sci >= 101 || fil >= 101 || h >= 101) {
            otp = "Invalid Input";
            output.Text = otp.ToString();
        }
        else {
            avg = ((eng + mt + sci + fil + h) / 5);
            if (avg >= 95) {
                score = "The Student has Passed with flying colors";
                comment = "The general average of " + Name + " is " + avg;
            }
            else if (avg >= 76) {
                score = "The Student has Passed";
                comment = "The general average of " + Name + " is " + avg;
            }
            else if (avg >= 75) {
                score = "The student Barely Passed";
                comment = "The general average of " + Name + " is " + avg;
            }
        }
    }
}
```

The application window titled "Form1" shows the following data:

Grade	Value
English	95
Math	97
Science	92
Filipino	89
History	85

Message box content: "The Student has Passed
The general average of Shawn Johnrich is 91.6"

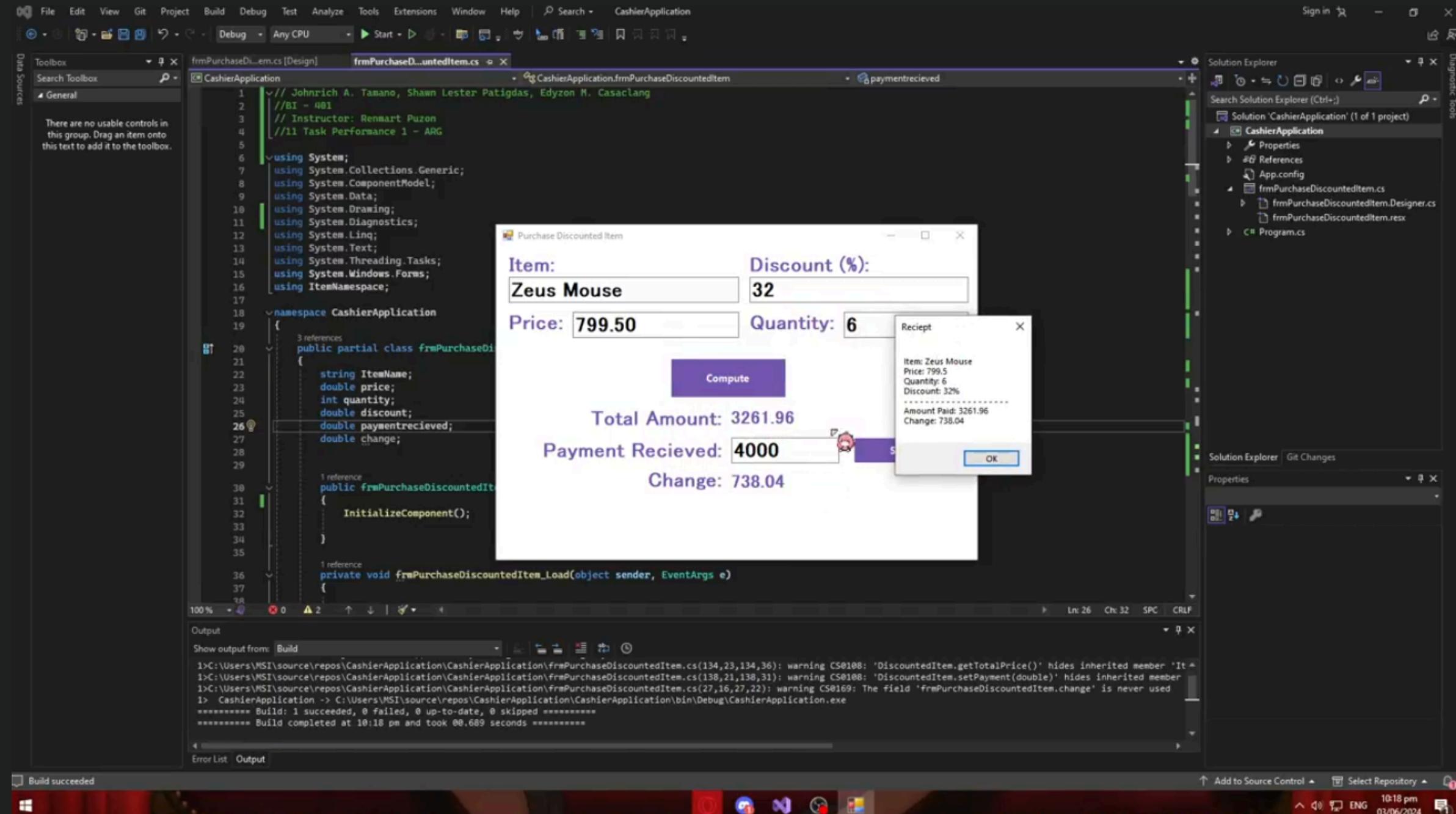
Buttons: Generate Average

C# Fundamentals
Decision Making
Homework

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E-Portfolio

2nd Year



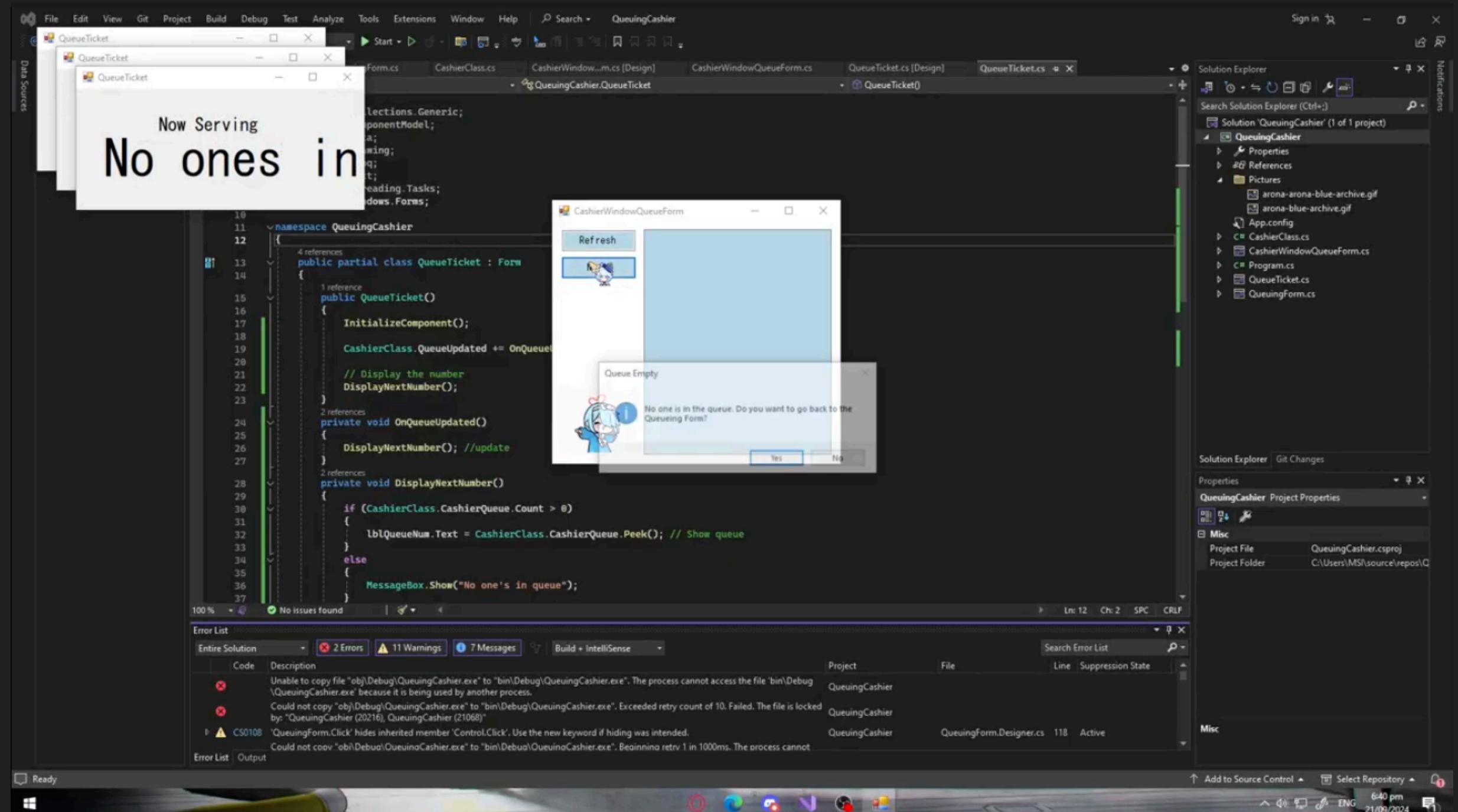
C# Fundamentals
Jframe Utilization
Project

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E-Portfolio

2nd Year

C# Fundamentals
Collections and Generics
Project



E-Portfolio

2nd Year

The screenshot shows a Microsoft Visual Studio interface with the following details:

- Toolbox:** Shows the "BasicThreading" group under "General". A tooltip says: "There are no usable controls in this group. Drag an item onto this text to add it to the toolbox."
- Code Editor:** Displays the `FrmBasicThread.cs` file with the following code:

```
34     {
35         // Directly update the label in the UI Thread
36         lblThread.Text = text;
37     }
38 }
39 private void btnRun_Click(object sender, EventArgs e)
40 {
41     // Instantiate the threads and process
42     ThreadA = new Thread(() => MyThreadClass.Thread1("Thread A"));
43     ThreadB = new Thread(() => MyThreadClass.Thread1("Thread B"));
44
45     // Start the threads
46     ThreadA.Start();
47     ThreadB.Start();
48
49     // joins two thread when it is finished
50     ThreadA.Join();
51     Console.WriteLine("Thread A is Finished.");
52 }
```
- Output Window:** Shows the execution log:

```
'BasicThreading.exe' (CLR v4.0.30319: BasicThreading.exe): Loaded 'C:\Windows\Microsoft.NET\assembly\GAC_MSIL\System\v4.0_4.0.0.0_b77a5c561934e089\System.dll'. Skipped loading symbols. ▾
'BasicThreading.exe' (CLR v4.0.30319: BasicThreading.exe): Loaded 'C:\Windows\Microsoft.NET\assembly\GAC_MSIL\System.Drawing\v4.0_4.0.0.0_b03f5f7f11d50a3a\System.Drawing.dll'. Skipped I
'BasicThreading.exe' (CLR v4.0.30319: BasicThreading.exe): Loaded 'C:\Windows\Microsoft.NET\assembly\GAC_MSIL\System.Configuration\v4.0_4.0.0.0_b03f5f7f11d50a3a\System.Configuration.dll
'BasicThreading.exe' (CLR v4.0.30319: BasicThreading.exe): Loaded 'C:\Windows\Microsoft.NET\assembly\GAC_MSIL\System.Core\v4.0_4.0.0.0_b77a5c561934e089\System.Core.dll'. Skipped loading s
'BasicThreading.exe' (CLR v4.0.30319: BasicThreading.exe): Loaded 'C:\Windows\Microsoft.NET\assembly\GAC_MSIL\System.Xml\v4.0_4.0.0.0_b77a5c561934e089\System.Xml.dll'. Skipped loading s
'BasicThreading.exe' (CLR v4.0.30319: BasicThreading.exe): Loaded 'C:\Windows\Microsoft.NET\assembly\GAC_MSIL\Accessibility\v4.0_4.0.0.0_b03f5f7f11d50a3a\Accessibility.dll'.
Name of Thread: Thread B Process = 0
Name of Thread: Thread A Process = 0
Name of Thread: Thread A Process = 1
Name of Thread: Thread B Process = 1
Name of Thread: Thread A Process = 2
Name of Thread: Thread B Process = 2
Name of Thread: Thread A Process = 3
Name of Thread: Thread B Process = 3
Name of Thread: Thread B Process = 4
Name of Thread: Thread A Process = 4
Name of Thread: Thread B Process = 5
Name of Thread: Thread A Process = 5
Thread is terminating on the 5th attempt.
Thread is terminating on the 5th attempt.
The thread '[Thread Destroyed]' (19380) has exited with code 0 (0x0).
The thread '[Thread Destroyed]' (12020) has exited with code 0 (0x0).
Thread A is Finished.
Thread B has finished.
The program '[22388] BasicThreading.exe' has exited with code 0 (0x0).
```
- Solution Explorer:** Shows the project structure for "BasicThreading" with files like `App.config`, `FrmBasicThread.cs`, `MyThreadClass.cs`, and `Program.cs`.
- Properties Window:** Visible on the right side.

C# Fundamentals
Threads
Homework

Powered by: Tamano

E-Portfolio

3rd Year

The screenshot shows a web browser window with the OPENEDG logo at the top left. The main area contains a code editor titled "main.py" and a "Console" output window.

Code (main.py):

```
1 def addition(x, y):
2     return x + y # 1 token
3
4 def subtraction(x, y):
5     return x - y # 1 token
6
7 def multiplication(x, y):
8     return x * y # 1 token
9
10 def division(x, y):
11     return x / y # 1 token
12
13 def remainder(x, y):
14     return x % y # 1 token
15
16
17 print(1 + 3 % 6)
18
19 print(1 + 3)
20
21 print(3 % 6)
22
23 print(3 % 6 + 1)
```

Console Output:

```
4
4
3
4
```

The browser's address bar shows "edube.org/sandbox". The status bar at the bottom right indicates "PSEI index +0.34%" and the date "07/03/2025".

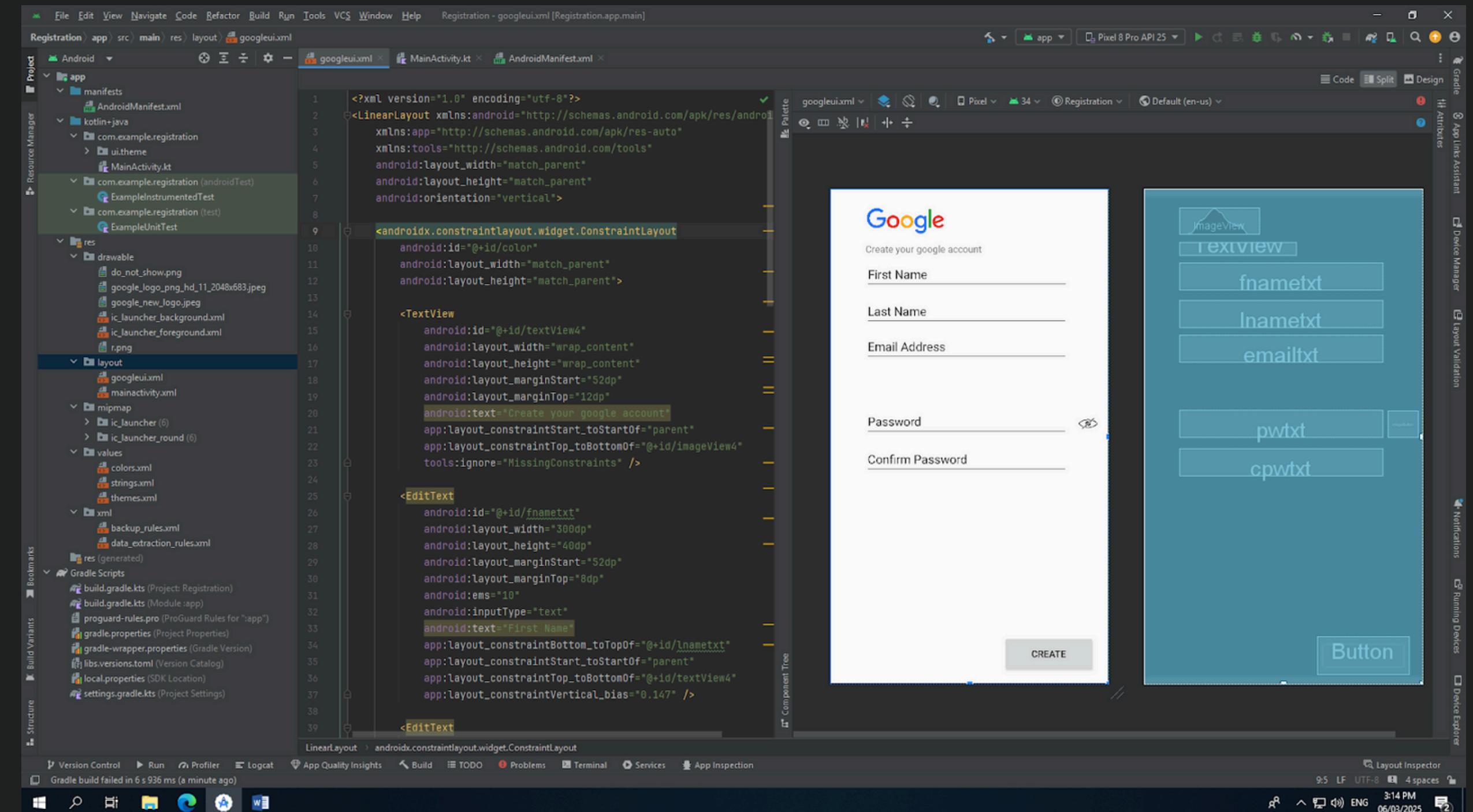
Python Fundamentals
Lexical and Syntax Analysis
Homework

Powered by: Tamano

E-Portfolio

3rd Year

Mobile Systems and
Technologies
UI:UX Activities and Intents
Homework

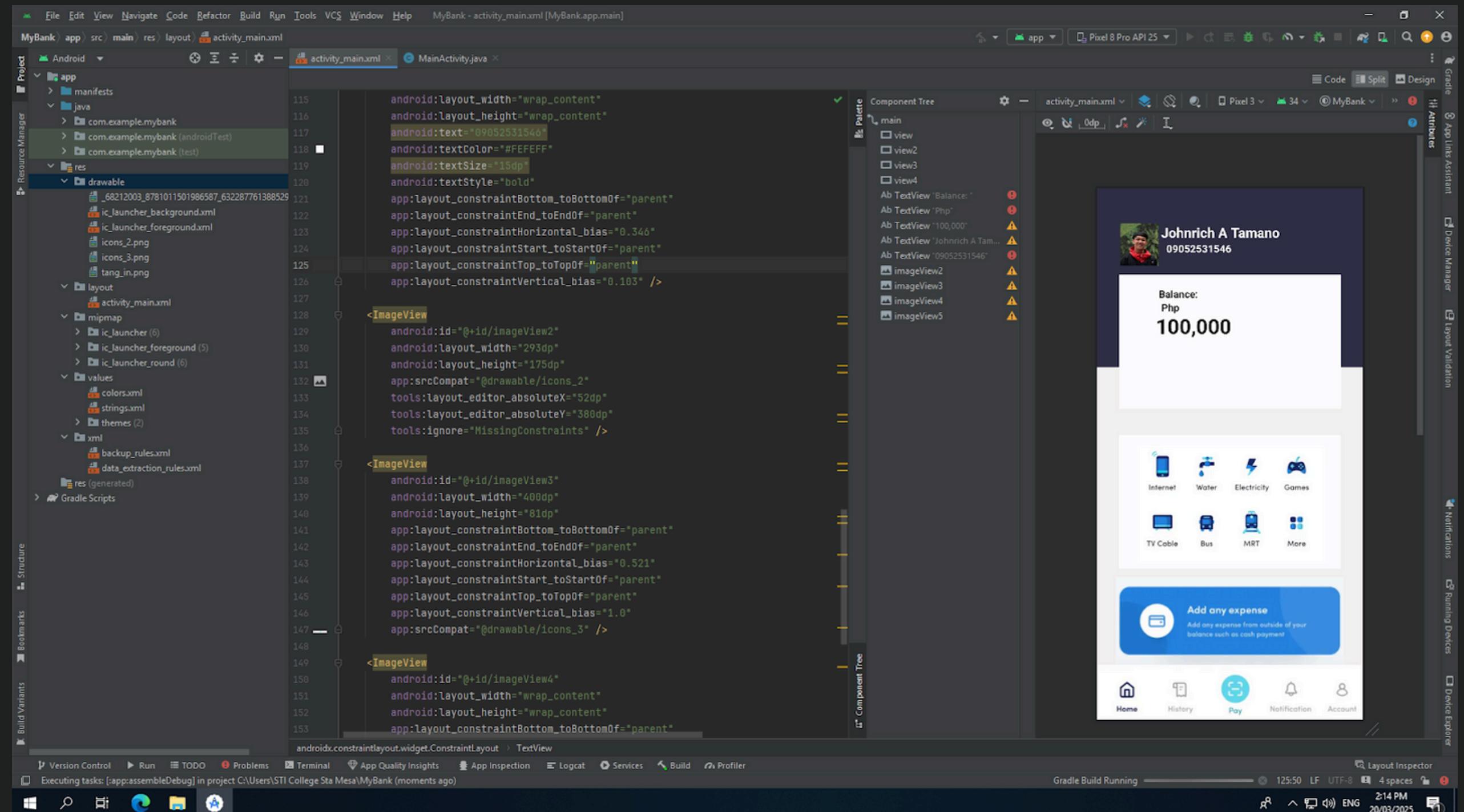


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E-Portfolio

3rd Year

Mobile Systems and
Technologies
User Interface
Homework



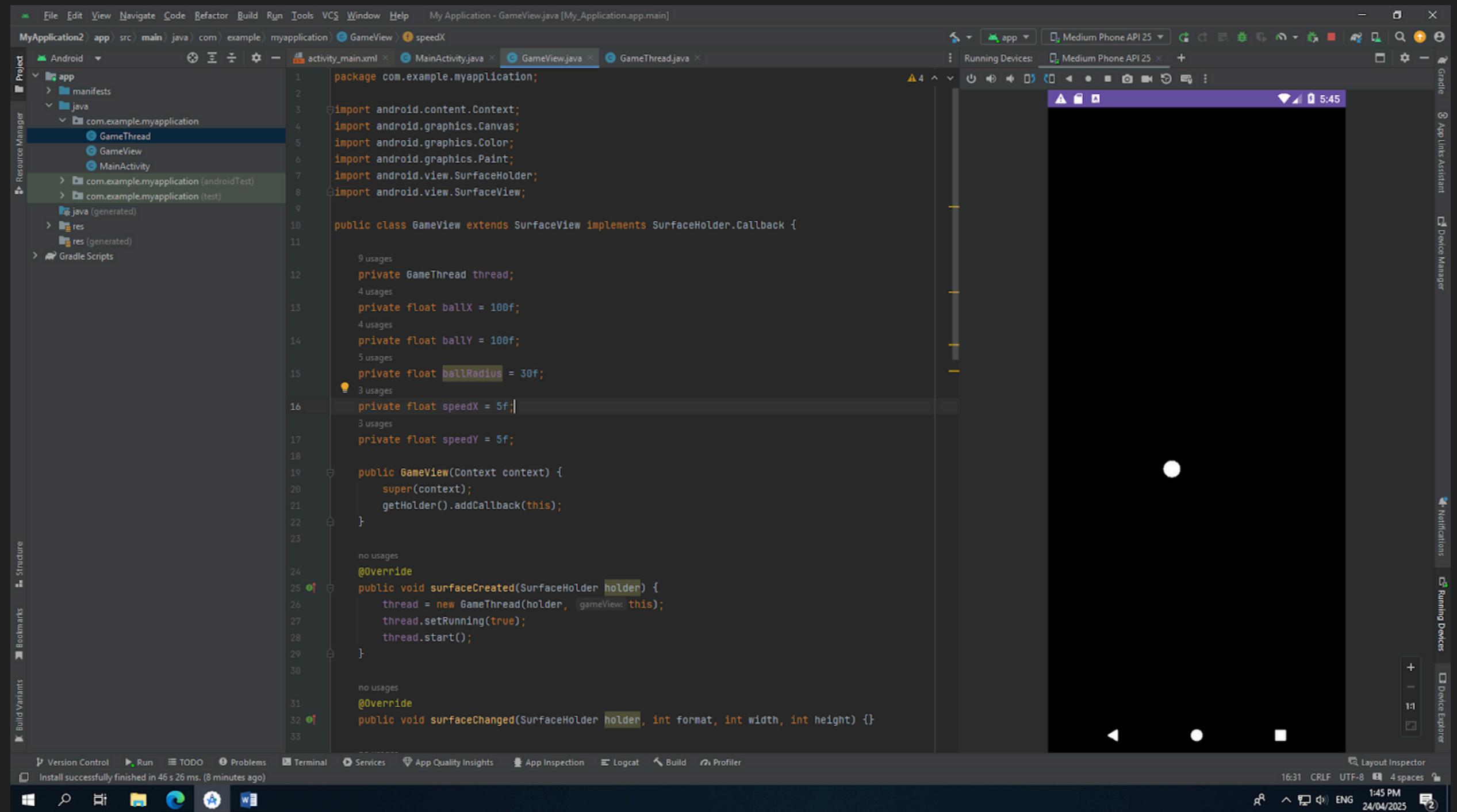
The screenshot shows the Android Studio interface with the project 'MyBank' open. The main window displays the XML layout file 'activity_main.xml' and its corresponding Java code 'MainActivity.java'. The layout file defines a ConstraintLayout containing several views, including TextViews for balance and PHP, and ImageView components. The Java code handles the logic for these views. On the right side, the 'Design' tab of the Layout Editor is active, showing a preview of the app's user interface. The preview features a header with a profile picture and name ('Johnrich A Tamano'), a balance of '100,000', and a section for adding expenses with icons for Internet, Water, Electricity, Games, TV Cable, Bus, MRT, and More. At the bottom, there are navigation icons for Home, History, Pay, Notification, and Account.

Powered by: **Tamano**

E-Portfolio

3rd Year

Mobile Systems and
Technologies
App Design
Homework



The screenshot shows the Android Studio interface with the following details:

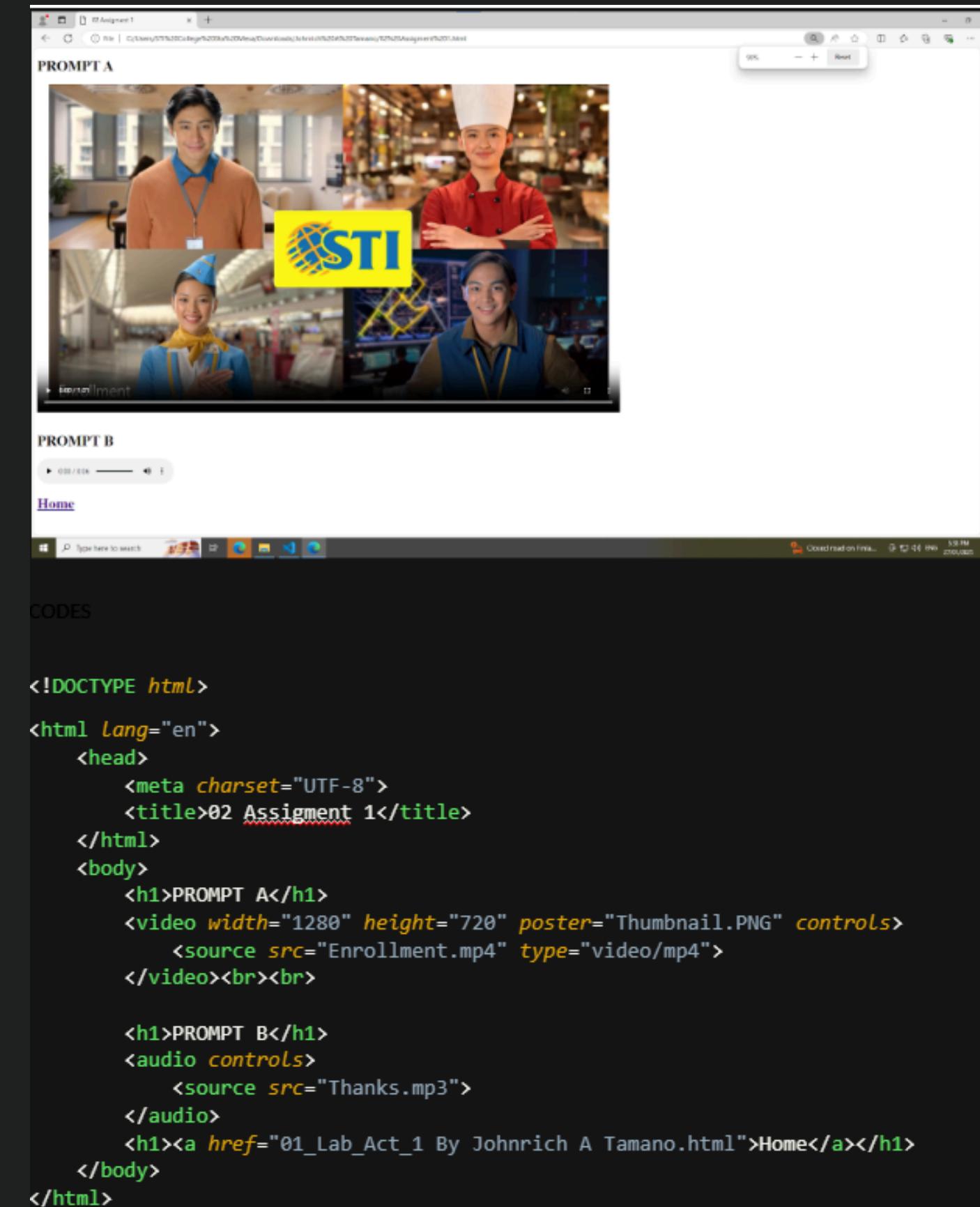
- Project Structure:** The project is named "My Application". The "app" module contains "Manifests", "java" (with files "GameThread", "GameView", and "MainActivity"), "res", and "gradle Scripts".
- Code Editor:** The "GameView.java" file is open, showing Java code for a SurfaceView-based game component. It includes imports for Context, Canvas, Color, Paint, SurfaceHolder, and SurfaceView. The class defines variables for ball position and radius, and a speedX field. It overrides the surfaceCreated method to start a GameThread.
- Run Tab:** A virtual device is selected with "Medium Phone API 25".
- Bottom Bar:** Shows the status "Install successfully finished in 46 s 26 ms. (8 minutes ago)" and the date "24/04/2025".

Powered by: **Tamano**

E-Portfolio

4th Year

Web Systems and
Technologies
HTML Essentials
Homework



The screenshot shows a web browser window with two main sections: 'PROMPT A' and 'PROMPT B'.

PROMPT A: This section displays four video frames stacked vertically. From top to bottom: a man in an orange shirt; a chef in a red uniform; a woman in a blue flight attendant uniform; and a man in a blue vest. A yellow rectangular overlay containing the 'STI' logo is positioned in the center of the stack.

PROMPT B: This section shows a video player interface. At the top, it says '0:00 / 0:06'. Below that is a link labeled 'Home'. The video player has a dark theme with a play button icon. The video content is a dark scene with some yellow highlights.

CODES: Below the browser window, the HTML code for the page is displayed.

```
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <title>02 Assignment 1</title>
    </html>
    <body>
        <h1>PROMPT A</h1>
        <video width="1280" height="720" poster="Thumbnail.PNG" controls>
            <source src="Enrollment.mp4" type="video/mp4">
        </video><br><br>

        <h1>PROMPT B</h1>
        <audio controls>
            <source src="Thanks.mp3">
        </audio>
        <h1><a href="01_Lab_Act_1 By Johnrich A Tamano.html">Home</a></h1>
    </body>
</html>
```

E-Portfolio

4th Year

Web Systems and
Technologies
HTML Essentials
Homework

A. STI ENROLLMENT FORM

Surname:

First Name:

Middle Name:

Birthday:

Contact Info:

BSIT BSCS BSTM

B. STI ENROLLMENT FORM

Name:

Course:

Section:

Web Syst
 P.E.
 English
 Math
 RPH

```
<label for="Contact">Contact Info:</label><br>
<input type="text" id="Contact" name="Contact" value=""><br>
<input type="radio" id="BSIT" name="IT" value="BSIT">
<label for="baguio">BSIT</label>
<input type="radio" id="BSCS" name="CompSci" value="BSCS">
<label for="cebu">BSCS</label>
<input type="radio" id="BSTM" name="Tourism" value="BSTM">
<label for="BSTM">BSTM</label><br><br>
<input type="submit" value="Submit">
<input type="Reset" value="Reset">
<br><br>
</form>
B. STI ENROLLMENT FORM
<form action="/action_page.php">
<label for="name">Name:</label><br>
<input type="text" id="name" name="name" value=""><br>
<label for="Course">Course:</label><br>
<input type="text" id="Course" name="Course" value=""><br>
<label for="Section">Section:</label><br>
<input type="text" id="Section" name="Section" value=""><br><br>
<input type="datetime-local"><br><br>

<input type="checkbox" id="WebSyst" name="top2" value="WebSyst">
<label for="WebSyst">Web Syst</label><br>

<input type="checkbox" id="P.E" name="top2" value="P.E">
<label for="P.E">P.E.</label><br>

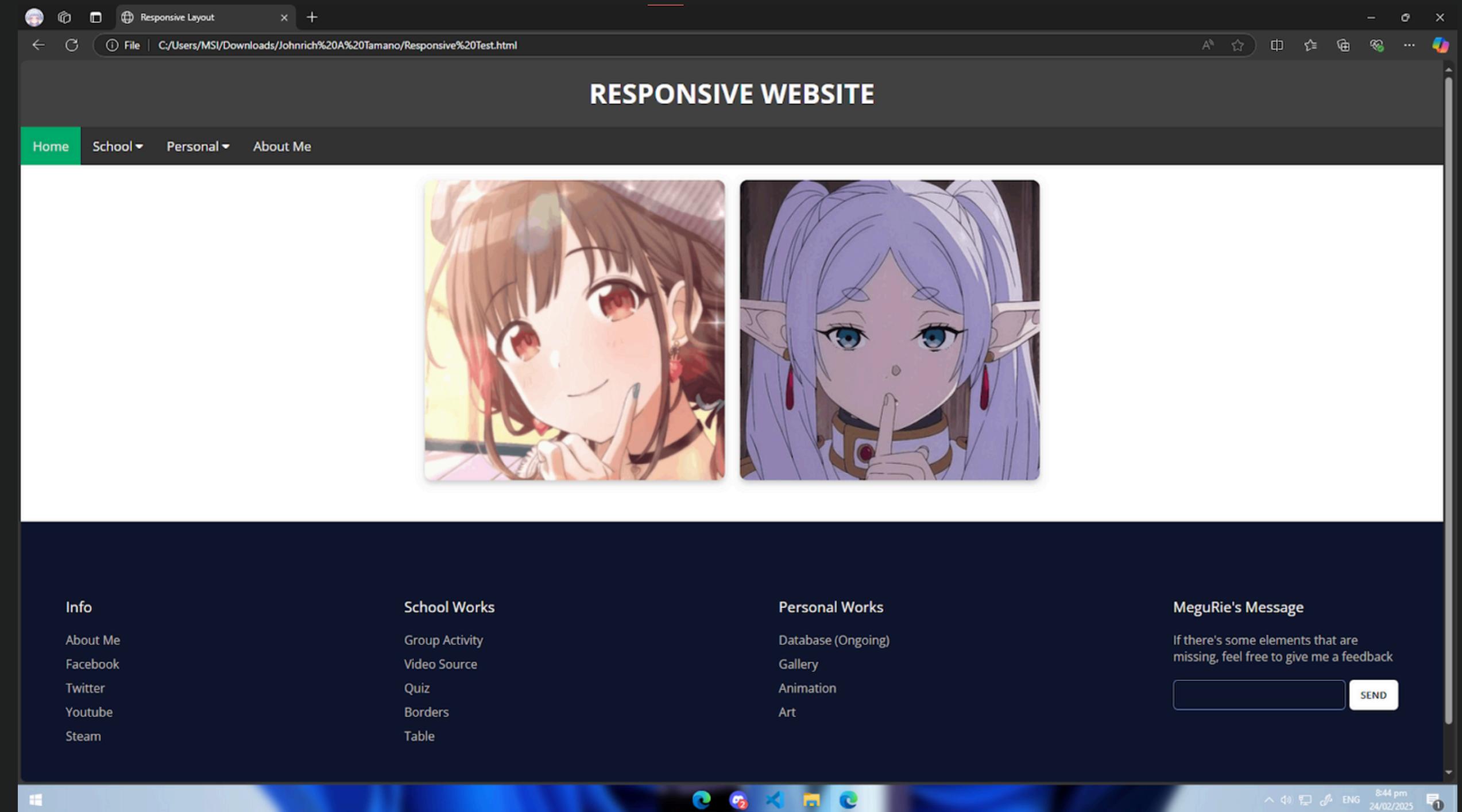
<input type="checkbox" id="English" name="top2" value="English">
<label for="English">English</label><br>

<input type="checkbox" id="Math" name="top2" value="Math">
<label for="Math">Math</label><br>
```

E-Portfolio

4th Year

Web Systems and
Technologies
Responsive Website
Project



The screenshot shows a responsive website layout. At the top, there's a dark header bar with a navigation menu containing 'Home', 'School', 'Personal', and 'About Me'. Below the header is a large white section featuring two anime-style girls. The girl on the left has brown hair and red eyes, while the girl on the right has purple hair and blue eyes. Both have pointed ears, suggesting they are elves or similar creatures. Below this image is a dark footer section divided into four columns: 'Info', 'School Works', 'Personal Works', and 'MeguRie's Message'. The 'Info' column includes links to 'About Me', 'Facebook', 'Twitter', 'Youtube', and 'Steam'. The 'School Works' column includes 'Group Activity', 'Video Source', 'Quiz', 'Borders', and 'Table'. The 'Personal Works' column includes 'Database (Ongoing)', 'Gallery', 'Animation', and 'Art'. The 'MeguRie's Message' column contains a text input field and a 'SEND' button. The bottom of the screen shows a Windows taskbar with various icons and system status information.

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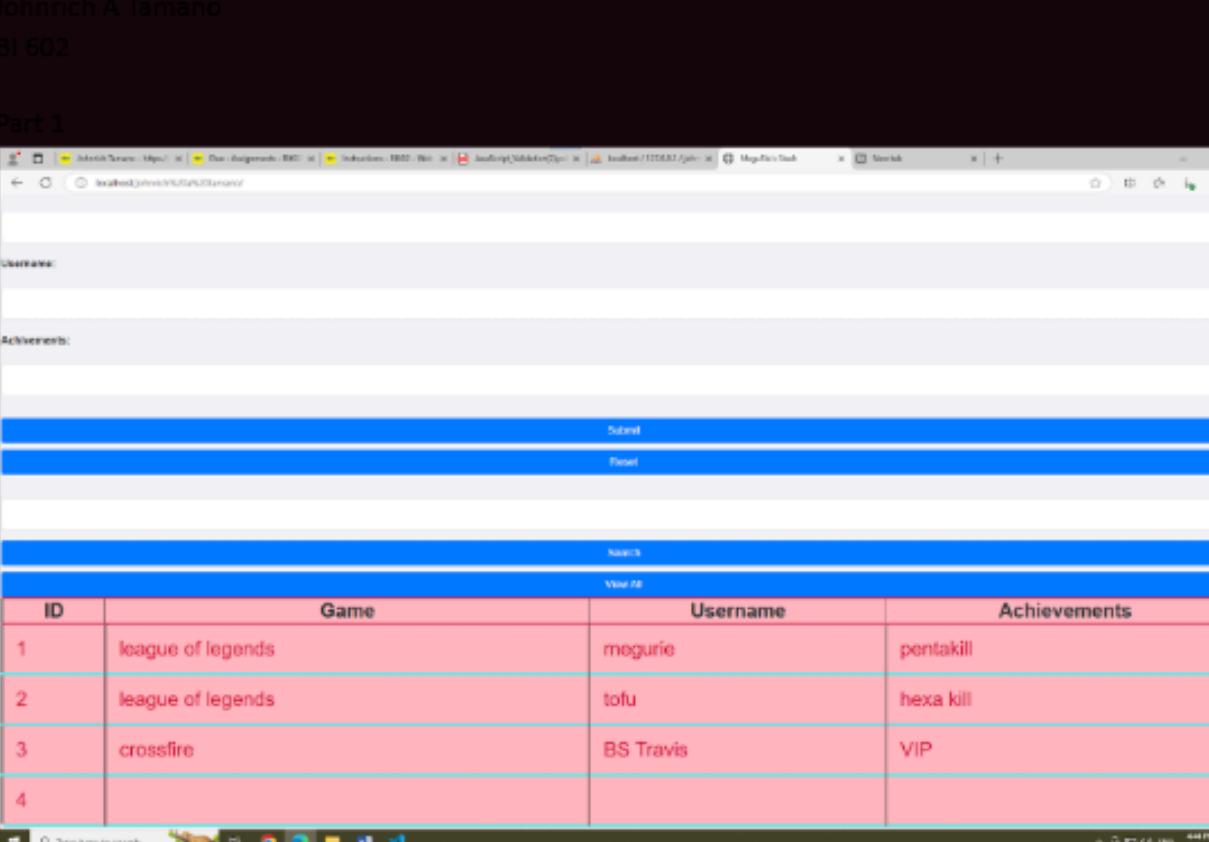
E-Portfolio

4th Year

Web Systems and
Technologies
Javascript Basics
Homework

Johnrich A. Tamano
SI 602

Part 1



The screenshot shows a web application interface. At the top, there are search fields for 'Game' and 'Username'. Below these are sections for 'Achievements' and 'Search'. A table titled 'View All' displays game profiles with columns for ID, Game, Username, and Achievements. The data in the table is:

ID	Game	Username	Achievements
1	league of legends	megurie	pentakill
2	league of legends	tofu	hexa kill
3	crossfire	BS Travis	VIP
4			

Part 2

Validation

Full Code:

```
<?php

$servername = "localhost";
$username = "root";
$password = "";
$database = "johnrich_a_tamano";

$conn = new mysqli($servername, $username, $password, $database);

if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

if (isset($_POST['save'])) {
    $game = $_POST['game'];
    $user = $_POST['username'];
    $achievement = $_POST['achievement'];

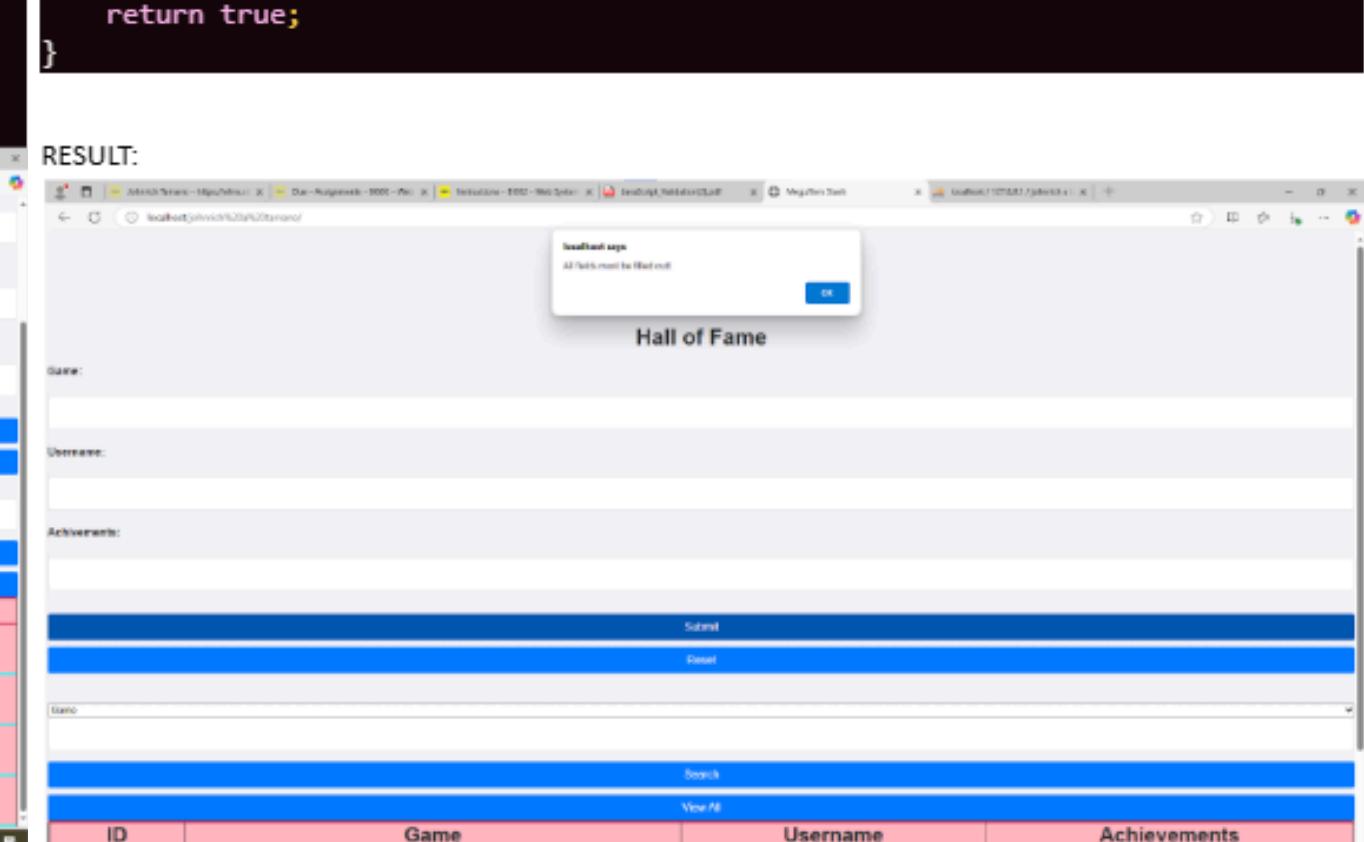
    $sql = "INSERT INTO gameprofile (game, username, achievement)
            VALUES ('$game', '$user', '$achievement')";
```

return true;

}

}

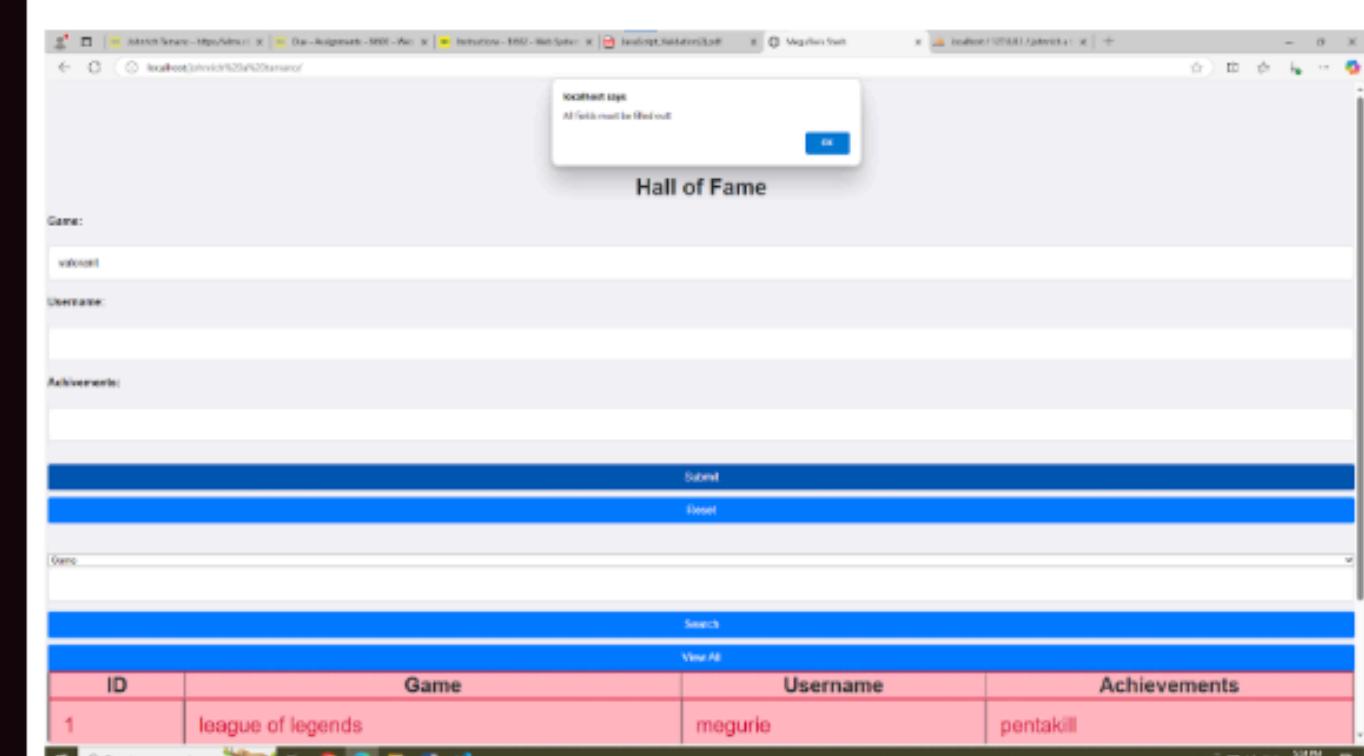
RESULT:



The screenshot shows the 'Hall of Fame' page. It has search fields for 'Game' and 'Username'. Below these are sections for 'Achievements' and 'Search'. A table titled 'View All' displays game profiles with columns for ID, Game, Username, and Achievements. The data in the table is:

ID	Game	Username	Achievements
1	league of legends	megurie	pentakill

Below the table, a modal window displays the message: 'localhost says: All fields must be filled out.'



The screenshot shows the 'Hall of Fame' page again. This time, the 'Game' field in the search form is empty. A modal window displays the message: 'localhost says: All fields must be filled out.'

localhost says: All fields must be filled out.

Hall of Fame

Game:

Username:

Achievements:

Search

View All

ID	Game	Username	Achievements
1	league of legends	megurie	pentakill

E-Portfolio

4th Year

Web Systems and
Technologies
Javascript Functions
Homework

```
191 <center>
192 <?php
193     $deposit = $row2['deposit'];
194     $payments = $rent + $deposit;
195     $balance = 320 - $payments;
196
197
198 //Task 1
199 $sql = "UPDATE rentals set balance ='$balance' where id = '$driverid' ";
200 $result2 = mysqli_query($conn,$sql);
201 mysqli_query($conn,$sql);
202
203
204 // --- CALCULATE the running TOTALS of deposit, rent, payment and balance -----
205 // - create the formula for the $deposit_totals and the $balance_totals
206
207 $rent_totals = $rent_totals + $row2['rent'];
208
209
210 // End of totals -----
211
212 // --- alternating row colors
213 if(@$color == "#E8EAE9") {
214     @$color = "#DEEFEE";
215 } else {
216     @$color = "#E8EAE9";
217 }
218
219 ?>
220
221 <tr bordercolor="#999999" bgcolor="#F0F0F0" class="style68">
222     <td height="29" align="center" valign="middle" bgcolor="php echo $color; ?" class="style18"><span class="priority
223     <td height="29" valign="middle" bgcolor="php echo $color; ?" class="style18"><span class="style14 style13 style1
224     <td align="left" valign="middle" bgcolor="php echo $color; ?" class="style18"><span class="priority-5"><span clas
225     <td align="center" valign="middle" bgcolor="php echo $color; ?" class="style18"><span class="style14 style13 style1
226
227
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```

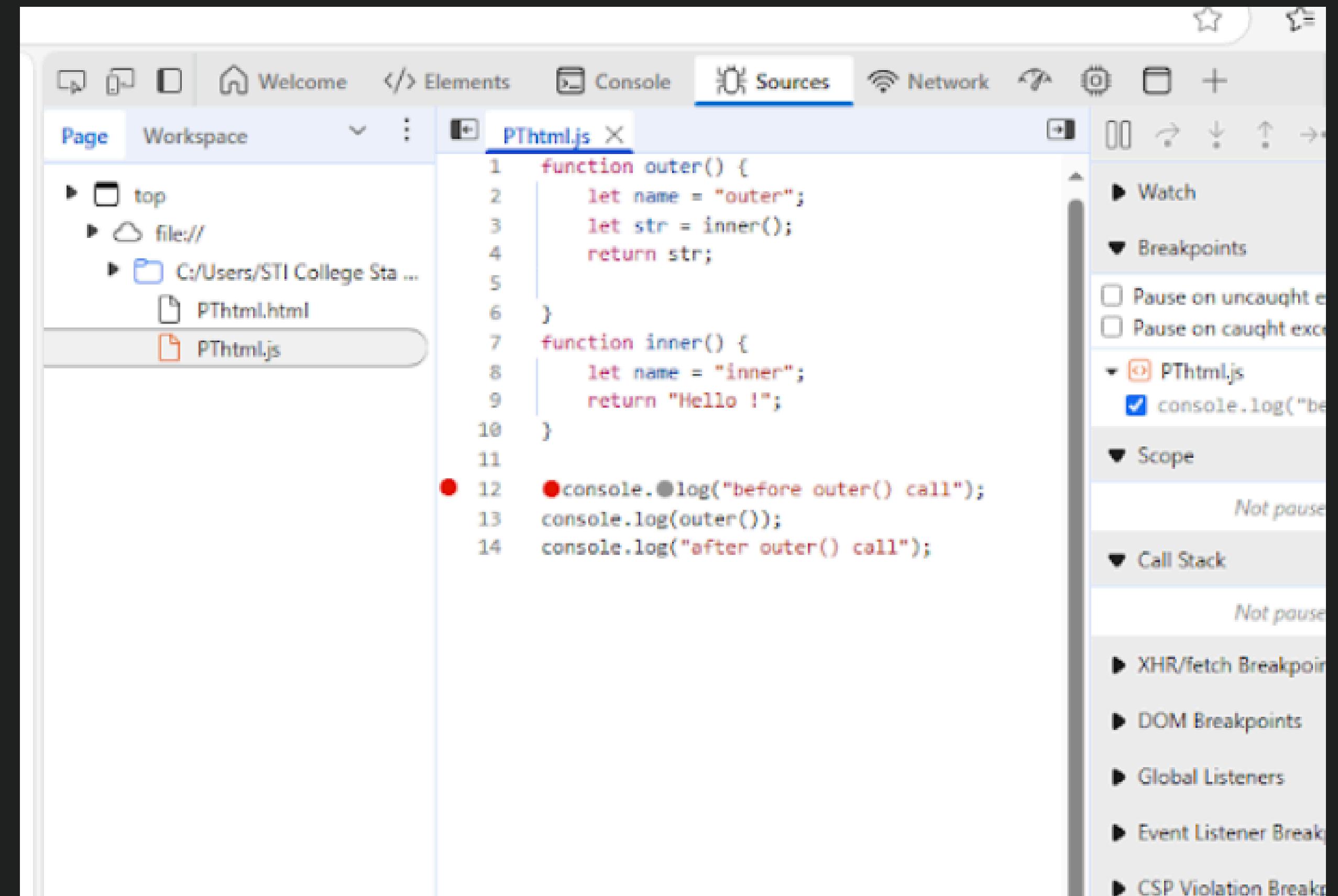
E-Portfolio

4th Year

```
191 <center>
192   <table width="100%" height="113" border="0" cellpadding="3" cellspacing="1" bordercolor="#99cccc" align="center">
193     <tr bgcolor="#000033">
194       <td align="center" bgcolor="#6699cc" class="style68 style77 style85 style11 style17"><span class="priority-1"><span class="style18"><strong>Action</strong></span></span></td>
195     </tr>
196 
197   <?php
198     $payments = 0;
199     $rent_totals = 0;
200     $deposit_totals = 0;
201     $balance_totals = 0;
202     $payment_totals = 0;
203 
204     while ($row2 = mysqli_fetch_assoc($result)) {
205       $driverid = $row2['id'];
206 
207       $rent = $row2['rent'];
208       $deposit = $row2['deposit'];
209       $payments = $rent + $deposit;
210       $balance = 0 - $payments;
211 
212       $sql = "UPDATE rentals set balance ='$balance' where id = '$driverid' ";
213       $result2 = mysqli_query($conn,$sql);
214       mysqli_query($conn,$sql);
215 
216 //Task 1
217       $sql = "UPDATE rentals set payments ='$payments' where id = '$driverid' ";
218       $result2 = mysqli_query($conn,$sql);
219       mysqli_query($conn,$sql);
220 
221 //Challenge
222       $sql = "UPDATE rentals set balance ='$balance' where id = '$driverid' ";
223       $result2 = mysqli_query($conn,$sql);
224       mysqli_query($conn,$sql);
225 
226 // $sql = "UPDATE rentals set balance ='$balance' where id = '$driverid' ";
227 // $result2 = mysqli_query($conn,$sql);
228 // mysqli_query($conn,$sql);
229 
230 
231 // === CALCULATE the running TOTALS of deposit, rent, payment and balance =====
232 // - create the formula for the $deposit_totals and the $balance_totals
233 
234     $rent_totals = $rent_totals + $row2['rent'];
235     $deposit_totals = $deposit_totals + $row2['deposit'];
236     $payment_totals = $payment_totals + $row2['payments'];
237     $balance_totals = $balance_totals + ($row2['balance']);
238 
```

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4th Year



The screenshot shows the Chrome DevTools interface with the 'Sources' tab selected. On the left, the file tree shows 'PThtml.js' is currently selected. The main pane displays the following JavaScript code:

```
function outer() {
  let name = "outer";
  let str = inner();
  return str;
}

function inner() {
  let name = "inner";
  return "Hello !";
}

console.log("before outer() call");
console.log(outer());
console.log("after outer() call");
```

A red dot at line 12 indicates a breakpoint has been set. The right sidebar contains sections for 'Breakpoints' (with 'PThtml.js' checked), 'Scope' (not paused), and 'Call Stack' (not paused).

E-Portfolio

4th Year

The screenshot shows a Windows desktop environment. In the foreground, there is a Python IDLE Shell window titled "IDLE Shell 3.13.0". The code entered is:

```
>>> import turtle
>>> t = turtle.Turtle()
>>> t.forward(50)
>>> t.backward(100)
>>> t.right(50)
>>> t.undo()
>>> t.clear()
>>> t.circle(50)
>>> t.color("red")
>>> t.color("red")
>>> t.begin_fill()
>>> t.circle(50)
>>> t.end_fill()
SyntaxError: invalid character '' (U+201C)
>>> t.color("red")
>>> t.begin_fill()
>>> t.circle(50)
>>> t.end_fill()
SyntaxError: multiple statements found while compiling a single statement
>>> t.begin_fill()
>>> t.circleee(50)
Traceback (most recent call last):
  File "<pyshell#12>", line 1, in <module>
    t.circleee(50)
AttributeError: 'Turtle' object has no attribute 'circleee'. Did you mean: 'circle'?
>>> t.clear
<bound method RawTurtle.clear of <turtle.Turtle object at 0x000001F3D36738C0>>
>>> t.clear()
>>> t.color("red")
>>> t.begin_fill()
>>> t.circle(50)
>>> t.end_fill()
SyntaxError: multiple statements found while compiling a single statement
>>> t.reset()
>>> t.color("red")
>>> t.begin_fill()
>>> t.circle(50)
>>> t.end_fill()
SyntaxError: multiple statements found while compiling a single statement
>>> t.color(ред)
>>> t.begin_fill()
>>> t.circle(50)
>>> t.end_fill()
SyntaxError: invalid character '' (U+201C)
>>> t.penup()
>>> t.pendown()
>>> t.color("red")
>>> t.begin_fill()
>>> t.circle(50)
>>> t.end_fill()
>>> t.penup()
>>> t.pendown()
```

The code attempts to draw a red circle using the `t.begin_fill()` and `t.end_fill()` methods, which results in a syntax error. A tooltip from the browser window provides information about the `color()` command.

The browser window title is "Python Turtle Graphics" and the tooltip text reads:

Use with color() command
or("red")
in_fill()
le(50)
_fill()
e cartoon
Example
aw again
your coc
of your c

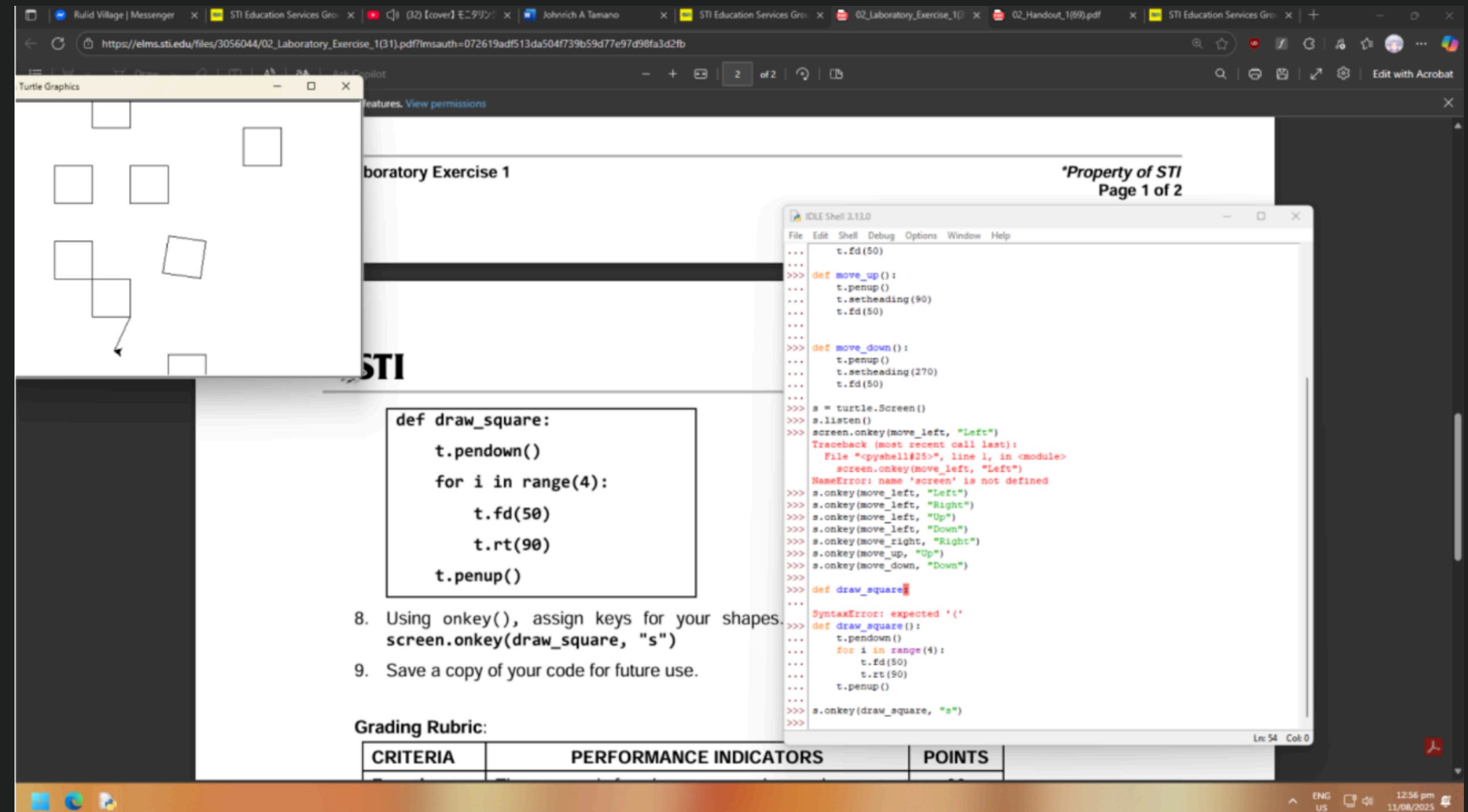
ng the color() function. Example: `t.color("red")`

Computer Graphics
Introduction
Homework

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E-Portfolio

4th Year



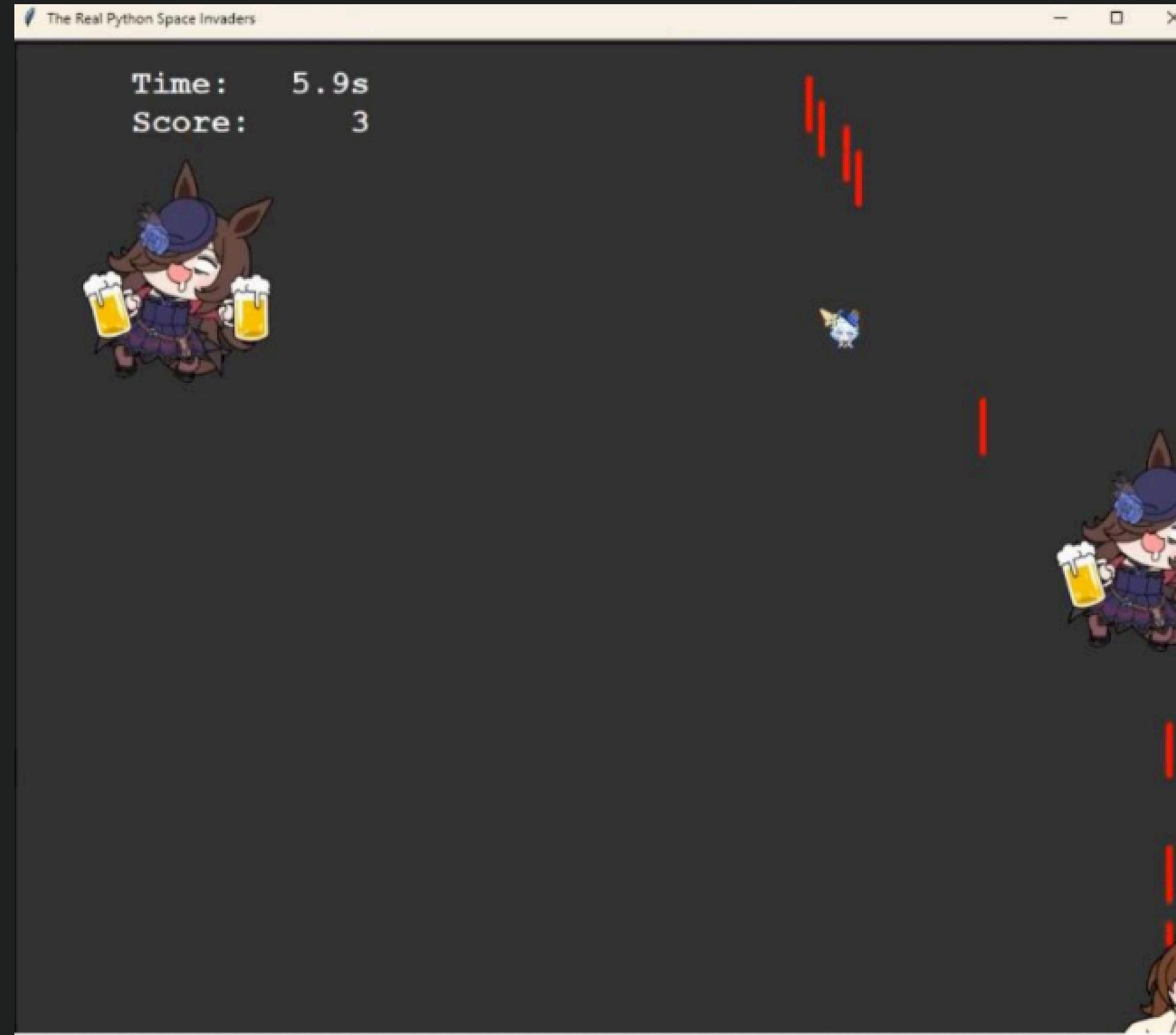
Computer Graphics
Pygame and OpenGL
Homework

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E-Portfolio

4th Year

Web Systems and
Technologies
Project



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Reflection

Throughout my academic journey, I progressively built my programming skills across different technologies and platforms. In the 1st year, I focused on learning core programming concepts using Java. The 2nd year introduced me to C#, where I developed desktop applications and enhanced my understanding of object-oriented programming. In the 3rd year, I expanded into mobile app development and Python, applying programming to both app creation and scripting tasks. Finally, in the 4th year, I concentrated on web systems development, gaining experience in building dynamic and interactive websites. This compilation showcases my technical growth, adaptability, and readiness to contribute to real-world IT projects.