**Lab 3 Nachiketh Mamidi (Scribe) / Ayush Shresth (Driver)**

**Part A**

1. Step n: done
2. Step n: done
3. Step n: done
4. Step n: done
5. “Hello, World!” on the terminal window.
6. Step n: done
7. “Hello, Ayush Shresth!” on the terminal window.
8. System.out.println(greeter2.sayGoodbye());
9. Step n: done
10. 20 is printed on the terminal window.
11. System.out.println(string1.toUpperCase());
12. String1 (““Hello, Ayush Shresth”) is printed and it is not printed in uppercase because .toUpperCase() creates a new string, it does not modify it.
13. Step n: done
14. String changed = string1.replace(“e”, “3”);

System.out.println(changed);

1. Hello, Ayush Shresth

**Part B**

1. Step n:done
2. Step n: done
3. A rectangle appeared in the terminal window.
4. Rectangle r2 = new Rectangle(30, 10, 20, 30); r2.draw();
5. The first rectangle is moved to (100,50).
6. The first rectangle is grown
7. Use the grow method { r1.grow(-50,-25); } to bring it to original size.

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\* Write a description of class RectangleViewer here.

\* Draw 2 rectangles and use grow and translate methods.

\*

\* @author Ayush Shresth(Driver), Nachiketh Mamidi (Scribe)

\* @version feb 12, 2021

\*/

public class RectangleViewer

{

public static void main(String[] args)

{

Rectangle r1 = new Rectangle(5, 10, 20, 30);

r1.draw();

Rectangle r2 = new Rectangle(30, 10, 20, 30);

r2.draw();

r1.translate(100,50);

r1.grow(50,25);

r1.grow(-50,-25);

}

}

**Step C**

1. Step n: done
2. Step n: done
3. A window pops up with different methods and explaining its parameters.
4. The method is called moveForward(),
5. Again a window same window pops up with various methods.
6. Searches in window for methods starting with t.
7. toUpperCase()
8. Step n: done
9. Used autocompletion to get toTurnRight() method.
10. It completes one full path in square and returns to original spot and moves forward

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\* Write a description of class RobotDemo here.

\* Created a Robot object called robbie and use auto completion to

\* apply methods.

\*

\* @author Ayush Shresth (Driver), Nachiketh Mamidi (Scribe)

\* @version Feb 12, 2021

\*/

public class RobotDemo

{

public static void main(String[] args)

{

Robot robbie = new Robot();

robbie.moveForward();

String name = "Robbie Robot";

name.toUpperCase();

robbie.turnRight();

robbie.moveForward();

robbie.turnRight();

robbie.moveForward();

robbie.turnRight();

robbie.moveForward();

robbie.turnRight();

robbie.moveForward();

}

}

1. Step n: done
2. The robot is replaced with roomba and its starting coordinates are changed.

Robot robbie = new Robot(2, 1, "roomba.png");

1. All methods and constructor and its description which are used in the project are provided.