About the program:

Game.java is the entry point to them game. It essentially places two JPanel’s ( Board.java and ToolBar.java ) into a JFrame ( Game.java ). Game.Java contains url paths to all of the images for the game. Game.java also creates an object called Grid. Grid.java is where all of the game logic goes. It contains a 2d array of tile objects that divide the JPanel into a grid of images. Each tile has to render an image. Currently the grid is 25 x 25. To change that you can either modify Game.windowHeight (Game.java), Game.windowWidth (Game.java), or tileSize (Grid.java). To change the speed at which the grid is rendered you can modify the variable DELAY in Board.java. Board.java is used to draw the grid, update the grid through grid.updateTiles(), and capture keyboard events to pass to the grid. ToolBar.java is the other JPanel nested in the JFrame Game.java. It contains all of the components of the menu bar (Restart, Score, and Background Color). Whenever you update a JPanel, JFrame, or one of their components, make sure you call the methods revalidate() and repaint(). Direction.java is an enum used to track direction, and GameObject.java is an enum used to track images of the tiles instead of passing around an image object. Note snakeTile, foodTile, and bodyTiles, located in Grid.java, are used to track information about the tiles that is then updated on the tiles array which gets drawn on the JPanel.

Steps:

1. Get the project to compile and run.
2. Get the up and down input for the snake head to work.
3. Make sure the snake can’t double back on itself. Ex: if you are going up you shouldn’t be able to go down. If you are going left you shouldn’t be able to go right etc.
4. Fix the tracking of the snake’s body parts. The body parts don’t appear to follow the snakes movement.
5. Stop the game and display the game over image when the player has collided with the wall or a body part. The game should end gracefully without any errors in the console.
6. Get the score counter in the menu bar to update with the current score.
7. Change the background color of the game when a color is selected from the Background Color drop down.
8. When the restart button is clicked the game is reset but it is not playable. Find the bug and fix it.