

Design Overview for Rectangle World ← this is the program name

Name: SAMPLE

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Summary of Program

As it says in the template, you would provide a short (1–2 paragraph) description of what your program does. In your description, focus on the program's functionality rather than how you will achieve it. Because this is just an example, I won't describe an actual program. The illustrative examples below are based on sample data types in the notes on MyLO. They are probably much simpler than what you will need in your program.

Required Data Types

Describe each of the (data-oriented) classes and enumerated data types you will create using the following table (one per type).

Table 1: Rectangle details

| Property | Type | Notes |
|----------|---------|----------------------------|
| width | int | Rectangle's width |
| height | int | Rectangle's height |
| opacity | Opacity | How solid the rectangle is |

Table 2: Opacity details, declared in Rectangle

| Value | Notes |
|-------------|--|
| OPAQUE | The rectangle is a solid colour |
| TRANSLUCENT | The rectangle is partially see-through |
| TRANSPARENT | The rectangle is completely invisible |

... ← These dots (an ellipsis) indicate you can duplicate the tables as many times as required

Overview of Program Structure

List the key methods you are going to need to create this program and where they will reside (most may be in the class containing main(), which is fine). For each method provide its name, return type (if known) and a brief description of what it will do.

| Class | Name | Return type | Description |
|-----------|--------------|-------------|---|
| MyProgram | addRectangle | int | Adds another rectangle to the collection |
| MyProgram | largerArea | boolean | Accepts two Rectangles and returns true if the first has greater area than the second |
| Rectangle | area | int | Calculates and returns the area of the rectangle |