

Design Features:

Brief: Create a piece of software using Java that takes the dimensions of a room as input and then outputs the area of the floor, amount of paint required to paint the walls and the volume of the room.

Let the users pick between 2 types of room:

- Cylinder
- Rectangular Tank

Each room will need to calculate 3 results:

- Area of the floor
- Amount of paint required to paint the walls
- Volume of the room

Users will operate the application through the terminal.

The design requirements could be implemented by having 1 class for each room type and having 3 associated methods with each to provide the required results.

Field data must include the details of the room dimensions.

Considerations:

Window area must be taken away from wall surface area before working out required paint needed.

RectangleRoom Data Input:

Floor Length, Floor Width, Wall Height, Window Area

CylinderRoom Data Input:

Floor Radius, Wall Height, Window Area

Requirements:

Math.PI will be required in this task.

Algorithm for calculating area of rectangle.

Algorithm for calculating area of a circle.

Algorithm for calculating volume of a Rectangular Tank.

Algorithm for calculating volume of Cylinder.

Algorithm for calculating surface area required to paint.

Version Control:

Github will be used for version control.