## Note: this file contains two tasks

## #2 - Dependency Injection with XML Configuration - Task 1

- 1. Define a new implementation for the Shape interface.
- 2. Define Draw2d Class and Draw3d class
- 3. Add new Shapes from Shape like Circle and Square.
- 4. Use a Draw2d Object and Draw3d Object inside the Circle and Square Classes
- 5. Reference your new implementation in the Spring config file (applicationContext.xml).
- 6. Apply the Constructor injection into Circle bean
- 7. Apply the Setter injection into Square bean
- 8. Retrieve a bean for Circle class and draw the Circle
- 9. Retrieve a bean for Square class and draw the Rectangle

## Output:

Drawing a 2d for circle

Drawing a 2d for Square

## #2 - Dependency Injection with XML Configuration - Task 2

We have a backend system that store some vehicles with two types (car, plane). we need to store the brand of each vehicle into the database. You will take the database properties details (url, username, password) and store them into a properties file.

- Define a new implementation for the Vehicle interface that contains a method for save data into database
- 2. Define Car Class and Plane class from Vehicle
- 3. Define a application properties file that contains these values
  - a. database.url = jdbc:mysql://localhost:3306/test
  - b. database.username = ahmed
  - c. database.password = MyPassWord123
- 4. Define a class that will make the database operations
- 5. Use a DatabaseOperation object inside car class and plane class to store their data into the database
- Reference your new implementation in the Spring config file (applicationContext.xml).
- 7. Apply the Constructor injection into Car bean
- 8. Apply the Setter injection into Plane bean
- 9. Retrieve a bean for Car class and store the data into the database
- 10. Retrieve a bean for Plane class and store the data into the database