User Manual

Circle Manager JavaFX Application

1. Introduction

This application allows users to manage circles by entering their radius, viewing the list of circles with their calculated areas, exporting the list to a text file, and switching between light and dark themes.

2. System Requirements

Java Development Kit (JDK) 24 or higher

JavaFX SDK 24

Operating System: Windows / macOS / Linux

IntelliJ IDEA (or any Java IDE) for running the source code

3. Features

3.1 Add Circle

Enter a positive numeric radius in the input field.

Click the Add Circle button to add the circle to the list.

Validation ensures only positive numbers are accepted.

Error messages appear for invalid inputs.

3.2 View Circles

All circles are displayed in a table with columns:

Radius (cm)

Area (cm^2) — automatically calculated.

3.3 Export to File

Click the Export to File button to save the list of circles to a file named circles.txt in the program folder.

The file contains radius and area values of all circles.

3.4 Theme Toggle

Use the Dark Mode toggle button to switch between light and dark themes.

The dark theme changes the background, text, table, and controls to dark colors for easier viewing in low-light conditions.

3.5 UI Design

The top section includes two colored panels:

Blue panel labeled "JavaFX UI"

Green panel labeled "JavaFX Events"

Two buttons and the toggle are styled consistently with the theme.

The window is centered and non-resizable.

4. How to Run

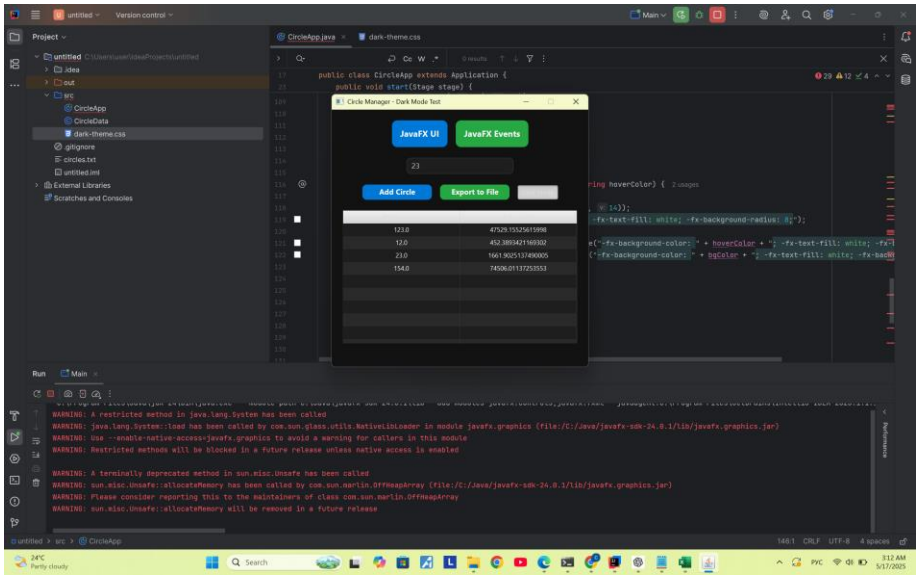
Open the project in IntelliJ IDEA.

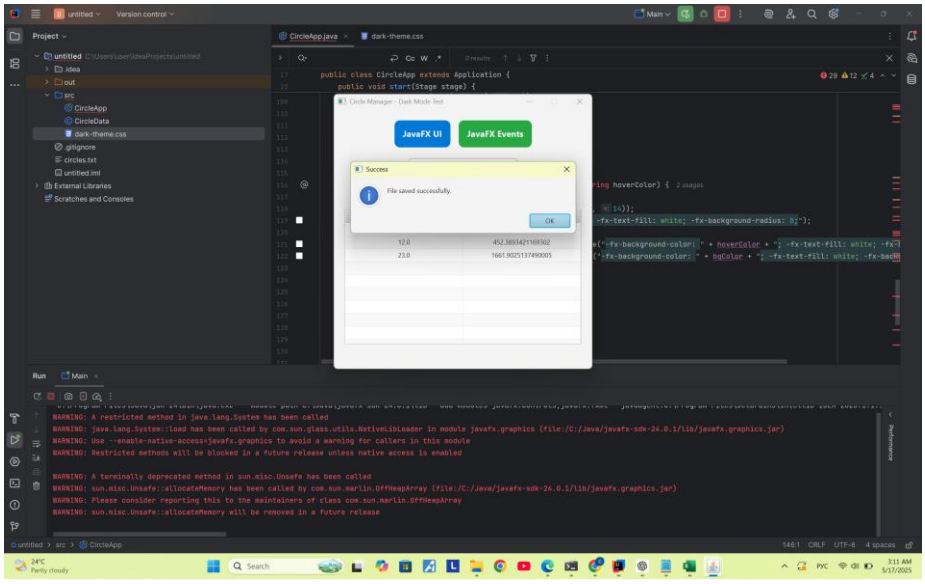
Ensure JDK 24 and JavaFX SDK 24 are configured.

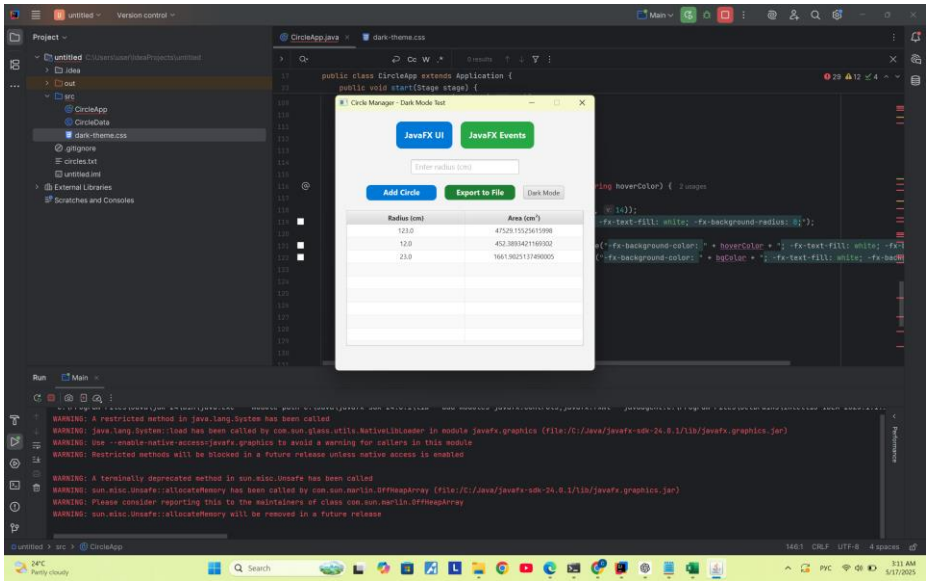
Run the CircleApp class.

The main window will appear.

5. Screenshots


Circle Manager - Dark Mode Test
JavaFX UI
JavaFX Events
Add Circle
Export to File
Dark Mode
Radius (cm)
Area (cm²)
123.0
47529.15525615998
12.0
452.3893421169302
23.0
1661.9025137490005
154.0
74506.01137253553


Success
File saved successfully.
OK


Enter radius (cm)

6. Troubleshooting

If the application does not start, check that JDK and JavaFX SDK paths are set correctly.

For dark theme issues, verify that dark-theme.css is in the correct folder and linked properly.

Ensure inputs are numeric and positive when adding circles.