

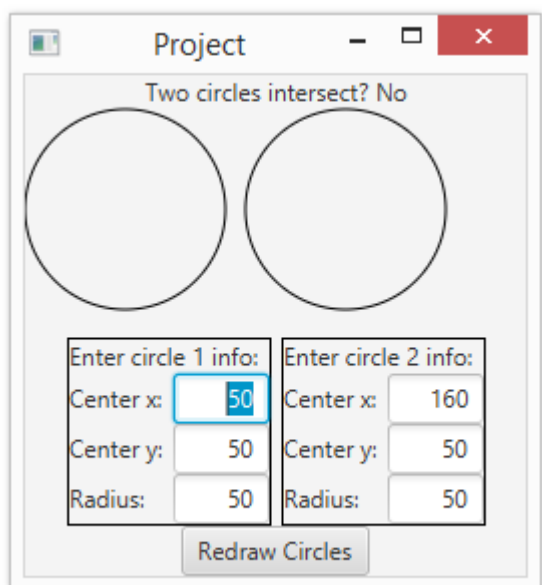
Final Project
DPJ5531 Programming in Java
Total Marks: 40%
Due Date: 5 March 2021, 5:00PM

Instructions:

1. This is an individual work. The project should be done solely by you!
2. **Warning:** Plagiarism will be given zero (0) mark without prior notice.
3. You will be given zero (0) marks if you do not submit on time. You are given ample time to submit earlier.
3. Submit only one zip folder with the file names as StudentID-StudentName.zip. The zip folder should contain all the source code.
4. You will need to attend an online interview session where the instructor will ask questions about the work you have done. Information about the interview session will be informed later by your lecturer. If you don't have a mic. Please get a mic ready!
5. Read the marking rubrics so that you know how to score your marks!

Question:

Create a Java GUI program that will draw two circles based on the user inputs - center-x, center-y, and radius (as shown in the figure below). The program should also state if the two circles intersect (as in the figure below). Users can also move their mouse pointer inside a circle and drag it. When the circle is dragged, the center coordinate details of the circle will be updated in the text field.



Marking Rubrics:

Criteria	Score and Descriptors					Weight (%)	Marks
	Good (10)	Above Average (8)	Average (6)	Below Average (4)	Poor (2)		
Program compilation	Program compiles without errors and warnings	Program compiles without errors but has got warnings	Program compiles with a single error	Program compiles with few errors (2 -5)	Program compiles with many errors (more than 5)	10	
Able to draw circles based on user input data?	Yes --> 10 marks Yes, with some problems --> 5 marks NO --> 0 mark					10	
Able to detect if the two circles intersect?	Yes --> 10 marks Yes, with some problems --> 5 marks NO --> 0 mark					10	
Able to drag the two circles?	Yes --> 10 marks Yes, with some problems --> 5 marks NO --> 0 mark					10	
Coordinate details updated when the circles dragged?	Yes --> 10 marks Yes, with some problems --> 5 marks NO --> 0 mark					10	
Able to answer interviewer random question #1	The answer is correct, complete, and elaborated with correct terms used	The answer is correct, complete, but very briefly answered.	The is correct in general but with some mistakes in the explanation.	The answer is very vague.	The answer is wrong	10	

Able to answer interviewer random question #2	The answer is correct, complete, and elaborated with correct terms used	The answer is correct, complete, but very briefly answered.	The is correct in general but with some mistakes in the explanation.	The answer is very vague.	The answer is wrong	10	
Able to answer interviewer random question #3	The answer is correct, complete, and elaborated with correct terms used	The answer is correct, complete, but very briefly answered.	The is correct in general but with some mistakes in the explanation.	The answer is very vague.	The answer is wrong	10	
Program designed is structured / modularized	The program is fully structured/modularized meaningfully--> 10 marks The program is partially structured/modularized --> 5 marks The program is not structured/modularized --> 0 marks					10	
Object oriented concepts used appropriately where needed.	Proper usage of object orientation observed --> 10 marks Object orientation usage lacking in some aspects --> 5 marks Very bad usage of object orientation --> 0 mark					10	
TOTAL						100	