



**Department of Electrical,
Computer, & Biomedical Engineering**
Faculty of Engineering & Architectural Science

Course Title:	COE 891
Course Number:	Software Testing and QA
Semester/Year (e.g.F2016)	W2024

Instructor:	Reza Samavi
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<i>Assignment/Lab Number:</i>	Project Proposal
<i>Assignment/Lab Title:</i>	Testing jfreechart

<i>Submission Date:</i>	Monday, Febuary 12, 2024
<i>Due Date:</i>	Monday, Febuary 12, 2024

1.0 Link to GitHub Repository

<https://github.com/jfree/jfreechart/tree/master>

2.0 Abstract

In our final project for COE 891, Software Testing and QA, we have chosen JFreeChart as the open-source application that we will be conducting testing on. The goal of this project is to detect errors, faults, and failures in JFreeChart and plan to rectify the problems using the methods we have learned in COE 891. JFreeChart is a charting framework developed in Java that allows users to create various types of charts and graphs. With JFreeChart chosen as our open-source application, our group will devise a comprehensive testing plan that will encompass the four major types of testing abstractions covered in class. The abstractions are Input Space Partitioning (ISP), Graph-Based Testing (CFG and DFG), Logic-Based Testing, and Mutation Testing. To conduct testing on JFreeChart, we plan on utilizing Junit, Mockito, JMeter, and muJava. Specifically, Junit will be used for conducting Input Space Partitioning (ISP) and Logic-based Testing. Mockito will be used to mock dependencies of the classes that will be tested, allowing us to isolate and test specific functionalities. This will be useful for unit testing where external dependencies can affect the outcomes of the tests. JMeter will be utilized for performance testing that will measure how JFreeChart behaves under different types of loads. Lastly, muJava will be used for mutation testing to check the quality of our test cases.

3.0 Group Member Information

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