

SFWR 3XA3: Problem Statement

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Problem

Developers face many challenges when they need to produce graphs their applications. Writing code that generates graphs reliably and correctly is time consuming, and often a problem that developers do not want to solve. A lightweight, easy to integrate, and reusable library that developers can use in any application would solve this problem. An existing solution, JCharts, will be reproduced.

Why is it important

The use of graphing technology is very diverse, whether it is related to statistical analysis and mapping trends or used in an educational environment such as a classroom. Considering how widely useful such graphing tools can be and how their use can lead to better understanding of data, our group will be reproducing a graphing library.

Current solutions to this problem are bulky and complicated. Often the time saved by using a library is reduced, because programmers have to spend time learning a new library. Focus on usability will save the user time, and better solve the problem.

Context

The stakeholders of this project include any programmers or developers who need to generate graphs in their application, any end user viewing the graphs generated by the library, and us, the development team. It is important to programmers to produce accurate, visually appealing graphs quickly and easily. This allows them to focus on their programs, and abstract away the duty of creating graphs. Without accuracy and visual appeal, the programmer will need to implement their own, better solution. Without usability, the programmer will spend time trying to get the library working that would be better spent on their program. End users viewing the graphs will appreciate visual appeal, as it will make the graphs easier to interpret.