BUSINESS CASE	
Proposed Project	[Master Calculator]
Date Produced	[Sept 24, 2021]
Background	This is the solo project for ENSE400 Capstone at University of Regina. The purpose of the project is to design a master calculator with better interfaces and reduce the complexity of combining symbols and abbreviations to derive the answer. The basic language for design is going to be Java, and Java ME for mobile app design. The second part of the project (winter term) will focus on embedded it on raspberry pi.
Business Need/ Opportunity	Calculator is a greater tool that could benefit engineers and scientists by handling a problem of time consumption. The target for this project is: 1. Basic calculator interface 2. Scientific calculator interface 3. Engineering calculator interface (be limit to the few problems due to the scope size). 4. Unit conversion (this can also be pushed to winter part of the term if the work is too much). 5. Embedded. (This will be a part of winter focus).
Options	• Create a mobile app only • Create a website only. • Embedded it on raspberry pi. • Building a master calculator on mobile app and on website application that can be used cross platform

Cost-Benefit Analysis

- Create a master calculator on the mobile app only
  A mobile app could be a better one because most people nowadays access any application on the mobile app more than the web application. It will not be going to cost much if we can build it on Java app development. In addition, it is going to be easy went the time come for app to be embedded.

- Create a master calculator on website application only
  This is another great way to build a calculator interface. Create a website application required HTML, CSS, JavaScript, JSON, bootstrap. Most of these tools are open source

and do not need any payment. The skills required to use those tools is not unique to four years software engineering.

- Embedded it on raspberry pi
  The embedded process is something to think about because most of embedded software are monetary and required licenses. Using Java Micro Edition will be helpful on that process. So, it be wise to use java to develop a calculator app at this stage for easy transition to Java ME and reduce the problem that may arise when the time come for embedded.

- Building a master calculator on mobile app and on website application that can be used cross platform
  Building both mobile and website application could not be a desirable process. The reason is that the scope will be way bigger, and it will take me more time than the time required for this project to be finished.

Recommendation

Create a master calculator on mobile app only.
Since the project is a solo project, it is better to build a mobile application only. If there is more time the focus will be solely on including more problems into calculator.