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# System Functionality

**What will the system do?**

The system takes the input of the user which includes information on the various units stats, any bonuses or determinants and the enemies stats that can negate any damage done and calculate the statistical average damage output for one unit versus another.

**When will the system do it?**

Upon completion of user input and completion of the calculation.

**Are there several modes of operation?**

No, not at this time. There is the potential to expand the system to allow for multiple game types, which would constitute different modes of operation.

# Data

**For input and output, what should be the format of the data?**

All data will be input and output in integer form.

**Must any data be retained for any period of time?**

The data must be retained while the application is opened until a new calculation is needed by the user.

**Are there any design constraints?**

Calculations will need to be accurate and rounded appropriately. The application must work consistently and reliably without an internet connection.

# Interfaces

**Is input coming from any other systems?**

No, all input is native to the application and/or is input by the user.

**Is output going to any other systems?**

No, all output will not be going to any other system.

# Performance **Are there constraints on execution speed, response time, or throughput?**

Since tournament play is time limited, the calculations need to be fast enough to not delay gameplay. Any delays must be from user error only.

# End Users

**Who will use the system?**

The Warhammer 40K player base during casual games and competitions.

**Will there be several types of users?**

No, the only users of this application will be players of the game. It needs to be noted however that there are players that follow different rulesets so different versions of the calculator will need to be created to account for this sub-playerbase.

**What will be the skill level of each user?**

The skill level will vary, but the user must be familiar with the basic Warhammer 40k rules (and whichever ruleset they decide to follow).

Usability and Human Factor  
**What kind of prerequisite knowledge or training will the user need to have?**

The user will need to have basic knowledge of the Warhammer 40k rules.

**How easy should it be for a user to understand and use the system?**

The system should be intuitive for any user of the system, and will be able to be used without any outside instruction.

Reliability & Availability

**Should the system detect and isolate faults?**

Yes, the system should detect faults and return errors to the users.

**What is the needed uptime of the system?**

Since the system does not require an internet connection, uptime is not an issue.

**Will the application require internet access?**

The application will only require internet access for initial download and future updates.

# Maintainability

**When and in what ways might the system be changed in the future?**

Rule updates happen periodically, and the system must be changed quickly to keep up with these changes. Also, there are several older versions of the game that a small percentage of the user base might want added in the future.

**How easy should it be to add features to the system?**

Features will be easy to add, and require a small update on the user end. This is the only time an internet connection will be required, and should automatically update.

**How easy should it be to port (migrate) the system from one platform to another?**

The technology and program will be easy to port from Android to Apple. The issue will be getting the app approved for the Apple app store, which is notoriously difficult.