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# **SHAPE**

# **System Requirements Document**

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# **Introduction - MP**

The purpose of this document is to specify and outline the system requirements for the functions of Shape. The Description Model section details all of the requirements for the system, such as output, input, processes, performance, and security for Shape’s main functions. The Class Diagram shows the relationship of the system’s objects, their attributes and associated methods. The Use Case Diagram describes and identifies the uses and interactions between the system and its actors, while the Use Case Scenarios diagram charts all possible events and steps involved in a task or activity. Lastly, the Systems Sequence Charts displays the sequence and flow of messages between the objects in the aforementioned Use Case Scenarios.

# **Description Model**

Using text, describe the requirements for your system. Expand on the function section from your project plan. Include requirements for the following categories: Output, Input, Processes, Performance and Security.

1. **Initial Requirements** -RP

Shape is a mobile application, requiring a smartphone capable of running Android or IOS software. It needs a steady internet connection to upload documents and pictures. The use of photos requires permissioned access to the camera. Access to contacts will be required for a robust friends list.

1. **Security** -RP

Security for user profiles revolves around the use of a personal profile for each user. Users will need usernames and encrypted passwords to access the environment. These usernames and passwords will be backed up with email verification. Passwords will be encrypted, and all user data encrypted behind a firewall.

1. Processes:
2. Journal/Calorie Tracker - MP

The journal and calorie tracker will provide the user with a means of keeping a record of their general thoughts, miles completed, calories lost, and goals. There will be a text box with a limit of 1000 characters, in which users may enter non-numerical data such as their thoughts, goals, and milestones. In addition to this, users will be able to calculate their BMI or steps per day, using external, third-party applications such as Fitbit or MyFitnessPal. Use of third-party applications will make manual entry of data such as miles completed optional. Alternatively, users may enter numeric data such as miles to complete and keep track of their progress using the calendar.

1. Charts -RP

The charts tab will create charts and graphs of the data entered into the Journal section of the application at the users request. The options available will be line, bar, and pie charts based on user specifications. For the line graph option, the x-axis will be time, while the y-axis will be of the user's choice from their journal records. This can be one of the default calories, weight, miles, or something custom, like a specific exercise health metric. The application will then create a simple line graph, and prompt the user to share the new graph to their profile, on a social media site like facebook or instagram, or simply download it to their phone. If the user wants the graph to be publicly viewable they will have that option at this time, otherwise, it will remain private. The bar graphs and pie charts work similarly in that they will display the users noted results from the journal, versus what their stated goals were. All graphs will be saved to the photos tab and a .PNG file where they can be shared or deleted at a later time. Created graphs are not alterable, and follow a basic template of Metric vs Time, or Metric vs Goal as the title.

1. Photos- RP

The photos tab will contain all photos, videos, and other multimedia created and uploaded by the user. Photos and videos can be uploaded from the users documents, or taken with the phone camera. Supported media extensions are .JPEG, .PNG, and .MP4. Uploaded media will default to private, viewable only to the user, but can be published, or uploaded to the users feed. These same photos can be uploaded for goals, or messaged to friends.

1. Friends - JL

Users can view who they follow and who follows them. When viewing someone’s page, the “follow” button will change to “following” if the user is following that person. A user can message those that follow them, and request to message those that do not follow them. Anyone can leave a comment on a post, with the creator of said post able to delete, highlight, and reply to comments. Users will have an option to connect their contacts to Shape in order to suggest people to follow.

1. Create Goals -JL

The goals feature will work as a milestone system in order to help Shape’s users visualize their goals, stay on track, and give them a tangible goal to reach. This feature will be in the journal tab, and they can be published or saved privately. If published, the user’s followers will have an option to comment on it, as they would a normal post. Users can attach charts, notes, or photos to their goals.

# **Class Diagram - MP**

See attached document in GitHub

**Use Case Diagram - JL**

See attached document in GitHub

# **Use Case Scenarios - JL**

See attached document in GitHub

**System Sequence Charts - RP**

See attached document in GitHub