|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | |  | | |
| Project: | | BizNotio | | |
| Team No.: | | Team 2 | | |
| Class: | | CSE 3310.001 - Summer 2020 | | |
| Module: | | System Requirements Analysis (SRA) | | |
| Deliverable: | | SRA Document | | |
| **Version:** | | **[1.0]** | **Date:** | **[08/12/2020]** |

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**Revision History**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Version number*** | ***Date*** | ***Originator*** | ***Reason for change*** | ***High level description of changes*** |
| 1.0 | mm/dd/yyyy | Sushant Gupta Lamia Chowdhury Sindhu Parajuli Jonathan Padilla | Initial draft |  |
| 1.1 | mm/dd/yyyy | Name(s) | Revision |  |
|  |  |  |  |  |
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# 1. Introduction and Project Overview

Team-2 has been employed to design and implement an android application to connect investors and investees. This will be a platform where people with ideas/business can reach out to investors and vice-versa to find funding. Incase of funding received, the application would get a certain commission from the receiving party. This application will be up by the first week of August and will have the features listed below initially. More features will be added per feedback and ideas received in future.

# 2. Objectives

## 2.1 BUSINESS Objectives

The following is a list of business objectives:

**Objective 1**: Member Registration: All members must provide the following information prior to using the system:

* First Name, last Name
* E-mail address
* User Name
* Password

**Objective 2**: Login functionality: All members must login to the system with a user/password that was established during Member registration stage.

**Objective 3**: “Account Maintenance” functionality must be supported that allows user to close and edit personal information and includes the following personal data:

* Phone number
* E-mail address
* Password
* Delete Account

**Objective 4**: The user will be able to create a profile with the following features:

* Personal information
* Upload picture/video
* Upload a proposal as a word file or pdf
* A minimum business case: goals,cost,schedule,restrictions,assumptions and constraints.

**Objective 5**: The user will be able to search for other profiles created in the application.

**Objective 6:**  The user will be able to send and receive messages.

**Objective 7**: The user will be able to call/video call other users.

**Objective 8**: The user will be able to recover their password or username in the event of authorized access or loss of credentials.

**Objective 9**: The user will be able to send and receive payments to another user.

**Objective 10**: The user will be able to rate/review other users according to their experience.

## 2.2 SYSTEM Objectives

The following is a list of system objectives:

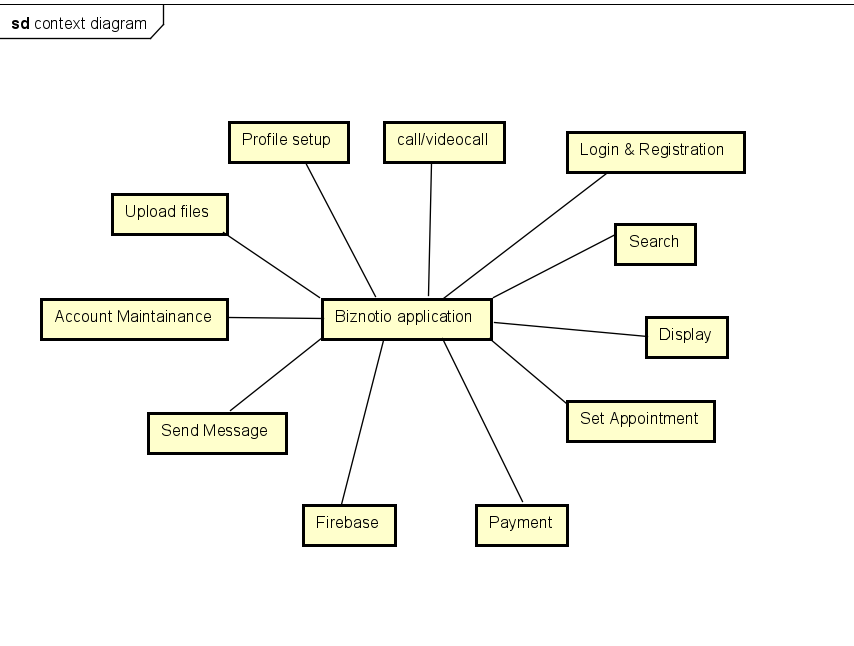
**Objective 1**: System will be an Android application

**Objective 2**: Kotlin will be used for UI.

**Objective 3**: Firebase will be used for authentication and database.

**Objective 4**: Material design theme will be used for interactive UI.

# 3. Project Context Diagram



# 4. Systems Requirements

{Introduce the following requirement sections that correspond with the “user” functionality. Keep hardware, database, test data, and android versions to section 5. Add a new section for each category of your requirements. This is the heart of the SRA document, and hence the lengthiest, and should list all requirements of the system. **Please use the designated Requirements Form, insert forms below.**}

## 4.1 “Home Screen” Requirements

## 

|  |  |
| --- | --- |
| **Requirement**  **Title** | Home Screen |
| **Sequence No:** | 001 |
| **Short description:** | Main page seen right after creating account/login which displays the functionalities to the user on the application. |
| **Description:** | The home-screen will serve as a road-map of the application where the user can navigate subsections such as ‘Go to Profile’, ‘Settings’, ‘Search’, ‘Create Post’. For a new user, the home-screen suggests to create a profile to begin with the application. Returning users can view other users who are already on the application. |
| **Pre-Conditions:** | Logging in the application successfully. |
| **Post Conditions:** | N/A |
| **Other attributes:** | N/A |

## 4.2 “Login” Requirements

## 

|  |  |
| --- | --- |
| **Requirement**  **Title** | Login |
| **Sequence No:** | 001 |
| **Short description:** | Allow to register a new user as a new account |
| **Description:** | New users after clicking ‘Register’ button enter the following information to create an account:   * Name (First and Last) * Email Address * User Name * Password   The registration process is completed when clicking the ‘submit’ button. The user can also cancel with the ‘cancel’ button. |
| **Pre-Conditions:** | Application must be downloaded. |
| **Post Conditions:** | Confirmation email will be sent to the User and can login in the application. |
| **Other attributes:** | N/A |

## 

|  |  |
| --- | --- |
| **Requirement**  **Title** | Login |
| **Sequence No:** | 002 |
| **Short description:** | Allow the returning user to log into the application. |
| **Description:** | On entering ‘User Name’ and ‘Password’ and clicking the ‘LogIn’ button the user can login to their existing accounts in the application. |
| **Pre-Conditions:** | The application must be already installed. |
| **Post Conditions:** | Home-page is displayed on login success. |
| **Other attributes:** | N/A |

## 

|  |  |
| --- | --- |
| **Requirement**  **Title** | Login |
| **Sequence No:** | 003 |
| **Short description:** | Cancel the changes made. |
| **Description:** | An existing user or a new user can press the ‘cancel’ button while making a new account or submitting the login information if the user doesn't want to enter any other information or doesn’t want to access the application at the moment. |
| **Pre-Conditions:** | The application must be already installed. |
| **Post Conditions:** | Cancels and fields are empty. |
| **Other attributes:** | N/A |

## 

|  |  |
| --- | --- |
| **Requirement**  **Title** | Login |
| **Sequence No:** | 004 |
| **Short description:** | Allows to set a new password incase forgotten |
| **Description:** | In events of a forgotten password, an existing user can simply click the ‘forgot password’ button and get a link in their email to set a new password for their account which then can be used to log into the system. |
| **Pre-Conditions:** | The application must be already installed.  The user must be registered. |
| **Post Conditions:** | The system accepts the new password and the homepage is displayed. |
| **Other attributes:** | N/A |

## 

|  |  |
| --- | --- |
| **Requirement**  **Title** | Login |
| **Sequence No:** | 005 |
| **Short description:** | Displaying the application logo on the login screen. |
| **Description:** | A logo of the application is displayed on the top of the page above the fields and buttons. |
| **Pre-Conditions:** | The application must be already installed. |
| **Post Conditions:** | N/A |
| **Other attributes:** | N/A |

## 4.3 “Account Setup” Requirements

|  |  |
| --- | --- |
| **Requirement**  **Title** | Account Setup |
| **Sequence No:** | 001 |
| **Short description:** | Create profile |
| **Description:** | The registered user will be able to create a profile and input all of their personal information they want to include.  This will be visible to other registered users.  The user will have the option to provide the following informations:   * Email * Phone number * Profile picture * Bio * Location * ... |
| **Pre-Conditions:** | * The user must be registered. |
| **Post Conditions:** | * Profile is created and saved to the database. |
| **Other attributes:** |  |

## 4.4 “Account Maintenance” Requirements

|  |  |
| --- | --- |
| **Requirement**  **Title** | Account maintenance |
| **Sequence No:** | 001 |
| **Short description:** | Edit user profile |
| **Description:** | A registered user will be able to update or edit information on their profile at any time.  The user will have the option to edit the following fields:   * Email * Phone number * Profile picture * Bio * Location   After updating the desired fields, the user will have the option to confirm or cancel the updates.  If the user confirms, the profile would be updated and the changes will be saved to the database.  The updates will be visible to other registered users.  If the user cancels, their profile will not be updated and the user will be redirected to the home page. |
| **Pre-Conditions:** | * The user must be successfully registered. * The user must click the “edit” button on the profile page. |
| **Post Conditions:** | * The user must confirm the changes for the update to be successful. * The changes will be saved to the database. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Account maintenance |
| **Sequence No:** | 002 |
| **Short description:** | Close/ deactivate existing account |
| **Description:** | The user will be able to temporarily deactivate or permanently delete their account at any time. They will have the option to provide feedback for taking this action.  If the user chooses to to deactivate their account, the account will not be visible to anyone else while it is deactivated. The user may reactivate the account at any time.  If the user chooses to delete the account, it will be permanently deleted. This action can not be reversed.  The user will need to open a new account if they wish to participate in the app in the future.  The user must confirm the deletion/ deactivation for it to be successful. |
| **Pre-Conditions:** | * The user must be successfully registered. * The user must click the “edit” button on the profile page. * The user must confirm for this action to be successful. |
| **Post Conditions:** | * Confirmation email will be sent to the user upon successful deletion/ deactivation. |
| **Other attributes:** |  |

## 4.5 “Manage Appointments” Requirements

|  |  |
| --- | --- |
| **Requirement**  **Title** | Manage appointments |
| **Sequence No:** | 001 |
| **Short description:** | Approve appointment |
| **Description:** | The investee will be able to view the appointment summary and choose to approve the appointment.  Appointment summary will have the following informations:   * Date of appointment * Time of appointment * Project name * Name of investee and investor * Email of investee and investor * Additional notes   Upon approving the appointment, a confirmation email will be sent to both the investor and investee with the appointment details included. |
| **Pre-Conditions:** | * The investor will have sent an appointment request to the investee. * The investee will need to review the request. |
| **Post Conditions:** | * Email confirmation with appointment summary will be sent to both the investor and investee. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Manage appointments |
| **Sequence No:** | 002 |
| **Short description:** | Deny appointment |
| **Description:** | The investee will be able to view the appointment summary and choose to deny the appointment.  Appointment summary will have the following informations:   * Date of appointment * Time of appointment * Project name * Name of investee and investor * Email of investee and investor * Additional notes   Upon denying the appointment, the investee may choose to provide feedback which will be sent along with a cancellation email to the investor. |
| **Pre-Conditions:** | * The investor will have sent an appointment request to the investee. * The investee will need to review the request. |
| **Post Conditions:** | * Cancellation email with optional feedback will be sent to the investor. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Manage appointments |
| **Sequence No:** | 003 |
| **Short description:** | Reschedule appointment |
| **Description:** | The user may choose to reschedule an appointment. They will need to select the “reschedule” button and fill out a reschedule form which will then be sent to the investor/ investee to review.  The user will need to review the changes and confirm to be able to submit the form.  Users will have to provide the following informations to reschedule an appointment:   * New date * New time * Reason (optional) |
| **Pre-Conditions:** | * The user must have an appointment scheduled. * The form must be filled out before the scheduled appointment. * The user must select the “reschedule” button. |
| **Post Conditions:** | * The original appointment will be cancelled. * A new request will be sent to the investor/ investee to be reviewed. |
| **Other attributes:** |  |

## 4.6 “Manage Proposals” Requirements

|  |  |
| --- | --- |
| **Requirement**  **Title** | Manage proposals |
| **Sequence No:** | 001 |
| **Short description:** | Post new proposal |
| **Description:** | The investee will be able to post a new project proposal at any time. They will be able to upload files or media along with additional texts they wish to provide on the proposal.  Once the investee has finished uploading all the information, they will need to review the proposal. They will have the option to confirm, save draft, or cancel.  If the investee chooses to confirm the proposal, they will need to click the “submit” button which will post the proposal for others to view.  If the investee chooses to save it as a draft, the proposal will be saved to their account. They may choose to finish uploading the proposal at a later time. The draft will not be visible to others.  If the investee chooses to cancel the proposal, the app will ask the user to confirm the cancellation and nothing will be uploaded. The proposal will not be saved to their account. The user will be directed back to the home page. |
| **Pre-Conditions:** | * The investee must be registered. * Files/ media must be successfully uploaded. * The investee must click the “new proposal” button on the proposal page. |
| **Post Conditions:** | * The proposal will be displayed on the investees page if the proposal has been successfully uploaded. * The proposal will be visible to other registered users. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Manage proposals |
| **Sequence No:** | 002 |
| **Short description:** | Edit proposal |
| **Description:** | The investee will have the option to edit an existing proposal that has been previously posted or choose to finish completing a saved draft.  If the investee chooses to edit a previously posted proposal, they must make changes to the fields they wish to edit and review the proposal. After reviewing the proposal, they will need to confirm the changes and resubmit the proposal for the updated proposal to be posted.  If the investee chooses to complete a saved draft, they will need to complete uploading the information. Once the investee has uploaded all the information, they will need to review and confirm the proposal and click “submit” which will post the proposal. |
| **Pre-Conditions:** | * The investee must be registered. * The investee must have previously uploaded projects or saved drafts. * The investee must click the “edit” button on the proposal page. |
| **Post Conditions:** | * The updated proposal will be displayed on the investees page if the proposal has been successfully uploaded. * The proposal will be visible to other registered users. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Manage proposals |
| **Sequence No:** | 003 |
| **Short description:** | Delete proposal |
| **Description:** | The investee will have the option to delete a proposal they have previously posted. They will need to confirm the deletion for it to be successful. |
| **Pre-Conditions:** | * The investee must be registered * The investee must have at least one previously posted proposal. * The investee must click the “edit” button on the proposal page. |
| **Post Conditions:** | * The app will display a confirmation deletion message. |
| **Other attributes:** |  |

## 4.7 “Review and Ratings” Requirements

|  |  |
| --- | --- |
| **Requirement**  **Title** | Review and ratings |
| **Sequence No:** | 001 |
| **Short description:** | Review investors/ investees |
| **Description:** | The user will be able to leave reviews if they have previously communicated with an investor/ investee. They may give helpful feedback, criticize, or express appreciation depending on their experience. Reviews will be visible to others. Review sections will have a word limit of 1000. |
| **Pre-Conditions:** | * The user will only be able to review investors/ investees they have previously communicated with. |
| **Post Conditions:** | * The review will be posted and visible to others * Others may reply or comment to the review. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Review and ratings |
| **Sequence No:** | 002 |
| **Short description:** | Rate investors/ investees (stars) |
| **Description:** | The user will be able to give ratings if they have previously communicated with an investor/ investee. This is to express their experience. Ratings will be visible to others. They will have the option to rate them on a scale from one star to five stars depending on their satisfactory level.  The user will be able to select the rating from he following options:   * 5 stars - Very Satisfied * 4 stars - Satisfied * 3 stars - Fair * 2 stars - Dissatisfied * 1 star - Very Dissatisfied |
| **Pre-Conditions:** | * The user will only be able to review an investor/ investee they have previously communicated with. |
| **Post Conditions:** | * The rating will be posted and visible to others. |
| **Other attributes:** |  |

## 4.8 “Payment” Requirements

|  |  |
| --- | --- |
| **Requirement**  **Title** | Payment |
| **Sequence No:** | 001 |
| **Short description:** | Payments methods |
| **Description:** | An investor who has had meetings with an investee regarding a project may decide to invest in the project. If they choose to invest in a project, they will have several payment methods available to them.  Payment methods:   * Credit card * Online |
| **Pre-Conditions:** | * The investor and investee have conducted a meeting regarding the project the investor wants to invest in. * The investor must decide to invest. |
| **Post Conditions:** | * The investor will be directed to a specific payment method page depending on the payment method they choose. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Payment |
| **Sequence No:** | 002 |
| **Short description:** | Pay with credit card |
| **Description:** | Once the investor has selected to pay with a credit card, they will be directed to a page where they will need to provide their credit card information.  They will need to provide the following information:   * Name on Credit card * Credit card number * Expiration date * Security code |
| **Pre-Conditions:** | * The investor must decide to invest. * The investor must choose to pay with a credit card. * The investor will receive a confirmation email. |
| **Post Conditions:** | * The investor will be emailed a receipt if payment has been successfully made. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Payment |
| **Sequence No:** | 003 |
| **Short description:** | Online payment |
| **Description:** |  |
| **Pre-Conditions:** |  |
| **Post Conditions:** |  |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Payment |
| **Sequence No:** | 004 |
| **Short description:** | Email receipt |
| **Description:** | Once the investor has made the payment, they will receive an email with the receipt. |
| **Pre-Conditions:** | * Payment must have been successfully made using one of the methods available. * The investor must provide a valid email address. * The investor will receive a confirmation email. |
| **Post Conditions:** | * The investor will receive an email of the receipt. |
| **Other attributes:** |  |

## 4.9 “Search” Requirements

|  |  |
| --- | --- |
| **Requirement**  **Title** | Search |
| **Sequence No:** | 001 |
| **Short description:** | Search by username/ name |
| **Description:** | A registered user will be able to search for anyone with a BizNotio account. They will have the option to search by name or username.  If the user chooses to search by name, they will need to either enter the first name, last name, or both.    If the user chooses to search by username, they will need to enter the username of the user.  After entering the name or username, the app will display users with the matches or similar matches. |
| **Pre-Conditions:** | * The user must enter a username or name. * The user they wish to search for must have a BizNotio account. |
| **Post Conditions:** | * The user will be able to view the search results. |
| **Other attributes:** |  |

|  |  |
| --- | --- |
| **Requirement**  **Title** | Search |
| **Sequence No:** | 002 |
| **Short description:** | Search by projects |
| **Description:** | A registered user will be able to search for anyone with a BizNotio account. They will have the option to search by project name.  If the user chooses to search by project name, they will need to either the name of the project or similar names.  After entering the name of the project, the app will display users with matching project names or similar matches. |
| **Pre-Conditions:** | * The user must enter a project name. * The user they wish to search for must have a BizNotio account. |
| **Post Conditions:** | * The user will be able to view the search results. |
| **Other attributes:** |  |

**{Add as many sections as necessary, i.e. 4.8, 4.9 etc., each corresponding to a category of *user* functionality such as examples above.}**

# 5. Software Processes and Infrastructure

## 5.1 Hardware and Infrastructure

{Any hardware and infrastructure types/issues such as which version of android and other related material go here}

## 5.2 UML Diagrams

{You can refer to the section number of the UML diagrams in the final binder. Also please feel free to add additional you feel are good additions}

## 5.3 Conceptual Data Model - Database

{All database material goes here, if any}

## 5.4 Screen Shots

{Include any screen shots if you have any here. This may take several pages. If nothing available, mention “None available at this time”}

## 5.5 Test Plan

{Simply mention that a test plan will be provided at a later stage of the project}

# 6. Assumptions and Constraints

## 6.1 ASSUMPTIONS

The following is a list of assumptions:

* Ignore collecting money from external advertisement and general accounting
* Ignore compliance issues
* Users are real Investees and Investors with correct information on profile
* User agreement and terms are not required
* Users are 18 years or older
* Ignore taxations on payment made through the application
* Ignore web-browser compatibility
* Abundant availability of team’s members throughout the project
* Team's members are familiar with all the development tools

## 6.2 CONSTRAINTS

The following is a list of constraints:

* Team lacks prior android experience
* Schedule very aggressive
* Team lacks prior Firebase experience
* Team lacks prior Kotlin/Java experience
* Team lacks prior database experience
* Lack of face to face meetings
* New team’s members to each other making difficult communication
* Device with specific minimum requirements is needed to run the app

## 6.3 Out of Scope material

The following is a list of “out of scope” material:

* Post Project maintenance is not covered

# 7. Delivery and Schedule

{List all tasks/milestones from start of the project to the end with specific dates for both Anticipated Start & End Dates

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task/Milestone Description | Anticipated Start Date | Anticipated End Date | Status | Comments |
| Prepare Requirements and UML diagram | 06/16/2020 | 07/02/2020 | Completed | Deliverable will be ULM document in PDF format.  Increment 1 Deliverable |
| SRA document (Includes project objectives, Requirements and UML diagrams) | 07/02/2020 | 07/21/2020 | In Progress | Deliverable will be the SRA document. All stakeholders agree on the content of the SRA by signing in section 8.  Increment 2 Deliverable |
| Home screen design and implementation | 07/02/2020 | 07/22/2020 | To Be Completed (TBC) |  |
| Login and registration design and implementation | 07/22/2020 | 07/25/2020 | TBC |  |
| .  .  . | ? | ? | TBC |  |
| **…**  **List all required functionality and tasks**  **…** | ? | ? |  |  |
| Test case design | 07/22/2020 | 07/30/2020 | TBC | Increment 3 Deliverable |
| External Documentation (i.e. User Manual) | 07/22/2020 | 08/10/2020 | TBC |  |
| Project presentation | 08/01/2020 | 08/11/2020 | TBC |  |
| Final Milestone: project delivery |  | 08/11/2020 | TBC | Increment 4 Deliverable |

# 8. Stakeholder Approval Form

|  |  |  |  |
| --- | --- | --- | --- |
| Stakeholder Name | Stakeholder Role | Stakeholder Comments | Stakeholder Approval Signature and Date |
| Rodrigo Augusto | Development Mgr |  |  |
| Prajwal Gautam | Project Assistant |  |  |
| Sushant Gupta | Developer |  |  |
| Sindhu Parajuli | Developer |  |  |
| Lamia Chowdhury | Developer |  |  |
| Jonathan Padilla | Developer |  |  |

# Appendix:

None