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# Software Specification

# Requirements

for

# CampusPay

Version 1.0

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\*(NOTE: SECTION NUMBERS IN THIS DOCUMENT CORRESPOND TO SECTION NUMBERS OF THE RESPECTIVE DOCUMENTS WHERE CHANGES WERE MADE)

# 1 Changes made to SRS Document

Grammatical and sentence phrasing was changed in some places of the document to make the entire document succinct, easier to read and accurate. Some of these changes were trivial and haven't been highlighted. The more impactful changes are enlisted below.

## 1.1 Changes made to Section 1

- ❖ **1.1-** The product scope was revised based on further team discussions regarding the usefulness of certain features and the final implementation.
  - Making instant payments is an essential feature of the app and was included in the SRS previously, however should be included in the overview as well.
  - After careful consideration, we decided to remove the feature of paying via a UPI account, as it undermines the purpose of our app to maintain a wallet and record the balance (UPI payments would have no effect on the balance). Also, having both UPI and wallet payments could lead to confusion among customers initially resulting in reduced customer satisfaction.
  - Dividing expenses into categories such as "food, utilities etc." can be managed by the app but it is unnecessary data segregation- it deviates from the main purpose of the app which is to maintain records and make payments hassle-free and resulting in a no-dues clearance efficiently.
  - Requesting clear dues is also a great feature for the vendor which was included in the SRS but should be highlighted in the overview as well.
- ❖ **1.3-** We redefined certain terms used throughout the document.
  - We added the term "admin" as a synonym for "super account" to maintain coherence with commonly used language and facilitate understanding for regular readers.
  - We changed the term "user" to "customer" to avoid confusion between the general term for software users and specific roles such as customers and vendors. This change allows us to use "user" as a general term for both customers and vendors, making the document more concise and clear for readers. This change is made throughout all the documents, including the use case diagrams, but has only been highlighted here.
- ❖ **1.4-** The formatting conventions which showed how changes have been highlighted were also included.

## 1.2 Changes made to Section 2

- ❖ **2.1-** An update to the product overview was done to realize the need for the software and to indicate the end-goal of the developers behind the idea of this software. With this update, it becomes clear that there is a need for a campus-specific software to facilitate payments and that it could potentially replace the digital transaction apps in place.
- ❖ **2.2-**
  - Transaction Verification is a feature that has been dropped for version 1 of the software since we do not facilitate initiation of transactions from the vendor side, as this may induce unnecessary complexities and may increase the likelihood of disputes between customers and vendors if executed partially. Note that customer side verification is not necessary since the commodity/service by the vendor to the customer is provided only after successful transaction. This feature can be incorporated as a future development plan when admin stakeholders become well defined for the campus setting who can handle such reports.
  - Profile deletion was a feature that was added since graduating students would not have a need for their account. With this, all CRED functionalities were implemented.
  - Vendors being able to manage their organization by being able to accept/decline customers is not a feature that has any practicality since it is highly unlikely in real life scenarios. Also, the vendor could simply choose not to provide their services to that customer and giving them the privilege to block them digitally is a redundant feature. A limit to the pending dues is a feature that can be explored in the next version of the software and with the current framework of the backend is not very hard to implement.

## 1.3 Changes made to Section 3

- ❖ **3.1 and 3.2-**
  - The user interfaces were updated to reflect the actual look of the software.
  - Details were included/changed that aligned with the final setup of the backend and frontend of the software.
- ❖ **3.3-**
  - Use case 1 was updated- it gets processed automatically.
  - Use case 5 was updated - As discussed above, we do not facilitate the initiation of transaction from the vendor side.
  - Another use case 7 was added to allow the users to delete their account. This is essential for students graduating from college and vendors shifting out permanently off the campus.
  - Autopay feature has not been included as of now as it could lead to apprehensions amongst the users.

## 1.4 Changes made to Section 4, 5 and Appendix A

- ❖ **4.1-** To clarify our expectations regarding certain requirements, we added quantitative parameters to certain terms.

- ❖ Changes made to succeeding sections reflect certain expectations that we changed over time. The access to SMTP and IMAP servers was unnecessary and we have got rid of it. Instead, we expect the database to validate registrations.
- ❖ We also added more data to the data dictionary for clear and complete reading experience. It is now a useful resource to check the accuracy and consistency of the entire document.

## 2 Changes made to Design Document

### 2.1 Changes made to Section 1

- ❖ The UI diagrams were updated by taking screenshots from the actual software so that the experience of the user who reads the document before reading the software is smooth.

### 2.2 Changes made to Section 3

- ❖ **3.2-** Class diagrams were changed to reflect the actual classes implemented in the backend and called from the frontend. Redundancy in previously drawn class diagrams and minor mistakes were taken care of.
- ❖ **3.4-** The State diagrams have been revised to reflect the current state of the software, with addition of some new diagrams. We have also provided more detailed examples of the feature journeys within each State diagram to provide greater clarity on the actual usage of each feature.

## 3 Changes made to Testing Document

### 3.2 Changes made to Section 2

- ❖ **2.7-** Since error messages were added to the implementation, they are now included in the testing document.
- ❖ **2.12- Vendor::** Overview unit tests were added to the testing doc after making meaningful changes in the beta testing debugging phase.

## Appendix A - Group Log

- **22nd April-**
  - Siddhant, Shantanu and Kalika highlighted the changes made in the SRS. Siddhant added the corresponding changes in the change log.
- **23rd April-**
  - Siddhant and Pratham added the changes made in the design document.
  - Pratham added the changes made in the test document.
  - Akshat added the further changes made to design document (specifically state diagrams).