# Smart queue system

# PROJECT SCOPE

### 20 September 2022

# Overview

## Project Background and Description

Smart Queue system is a technology aided queueing system for institutions and organizations to ease and manage queues during their service delivery.  
Queueing in organizations, although has been drastically reduced through the use of queue management systems, is still an essential element for effective service delivery. The system will incorporate both physical queues and virtual queues.  
Virtual queueing will be used to manage queues for online service delivery.

The system will be able to; -

* Fasten the operational processes for all the service delivery systems
* Increase transparency during service delivery.
* Increase, and by extension, instill trust among individuals involved in seeking for services.
* Lower the turnaround time for operations.
* Lower operational costs, with the hope of escalating the benefits to its members.

## Project Scope

In order to achieve the above named, the project will implement an android application that will be accessible through smart phones.

The functionalities that will be implemented at a high level are: -

### Membership Module

Membership module will include: -

* New members’ registration process and records keeping.
* Maintenance of existing membership records.
* Management of membership deregistration process.
* Members access management to their individual accounts.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | MEMBER OPERATION | REQ. | PROVIDED | ACCESS |
| 1 | Register member | FORM | YES | Management |
| 2 | Approve new member registration | Process | NO | Management |
| 3 |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| # | ROLE | ACCESS | COMMENTS |
| 1 | SUPER-USER(admin) | ALL | Can do everything |
| 2 | QUEUE-MANEGER | QUEUEUING |  |

### Queueing Module

The Queueing module will include: -

* Service selection process
* Queuing type selection process e.g. physical or virtual
* Queueing process
* Dequeuing process

|  |  |  |  |
| --- | --- | --- | --- |
| # | OPERATION | PROVIDED | COMMENTS |
| 1 | Service selection process | YES | Done by Admin |
| 2 | Queuing type selection process | NO | Done by admin |
| 3 | Queueing process | NO |  |
| 4 | Dequeuing process | NO |  |

### Customer care Module

This is a module through which the customers can rate the services of the institutions and application.  
through this they can also raise their complains about the services or compliments for the services received

Reports

There will be several reports that will accompany the software. The rest of the reports will be as will be requested.

|  |  |  |
| --- | --- | --- |
| # | REPORTS |  |
| 1 | Members list |  |
| 2 | Queue size report |  |
| 3 | Served customer report |  |

## High-Level Requirements

The system is a mobile based application. As such, any device with an android operating system of a version higher than 6.0, will be able to access it.

The new system must include the following:

* Ability to allow users to initiate queueing at any time
* Ability to interface with the existing physical schedules and operations
* Ability to incorporate automated current queueing systems
* Ability to update users of their current position on the queues

## Deliverables

* Back-end software that is hosted in the cloud.
* UI Prototype for both members and management. .
* Members responsive mobile based application accessible.
* User documentation manual.
* Technical documentation

## Affected Parties

* Management
* Customers

## Affected Business Processes or Systems

* Member registration
* Queueing
* Dequeuing
* Queue status updates

## Specific Exclusions from Scope

In this phase (phase 1), the following will be excluded and will come in the subsequent phases: -

* Augmented reality model representations of the customers on queue and available number of staff offering services
* Real time communication between clients and management

## Implementation Plan

The project will kick off with the UI prototype development. Selected users will be able to go through the UI prototypes to ensure that they are of a desirable quality. After the UI prototype has been done, the UIs will be replaced with the business logic, starting with the first module, that is Membership module until the last one which is the dequeuing module systematically. After the implementation of the modules, signing off, commissioning and training will follow thereafter.

## High-Level Timeline/Schedule

The project timeline is represented in form of a Gannt chart to show the how the processes are carried out.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Date | Description | Dep. | Comments |
| 1 | 14/9/2022 – 21/9/2022 | Requirements specification |  |  |
| 2 | 21/09/2022 – 2/10/2022 | UI/UX prototyping | #1 |  |
| 3 | 2/10/2022 – 18/10/2022 | Registration module | #2 |  |
| 4 | 19/10/2022 – 03/11/2022 | Queuing module | #3 |  |
| 5 | 04/11/2022 – 20/11/2022 | Dequeuing module | #4 |  |
| 6 | 22/11/2022 – 25/11/2022 | Official commissioning and training | #4 |  |

# Approval and Authority to Proceed

We approve the project as described above, and authorize the team to proceed.

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Title | Signature | Date |
| Felix Otieno Okoth | Mr. |  |  |
| Julius Osembo | Mr. |  |  |
|  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |
| Approved By |  |  | Date |  | Approved By |  |  | Date |