System Requirement Specification: Online Ticket Management System

Version Number	Version Details	Documented By	Submitted By	Approved By	Remarks
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1. Purpose:

The document demonstratse the software requirement for an Online ticket management system for citizens which allows them to log tickets online using Mobile & Web application, view the status, receive updates.

2. Scope:

2.1Users:

- Power user: user can add/edit, manage the master data like defining the ticket handling hierarchy, escalation hierarchy.
- Citizens (End Users): users who will use mobile application to log tickets.
- Administrator: For supporting the technical or configuration part of the system.
- System should be made based on roles: Power can provide the access of features based on the user roles defined in the system.

2.2 Ticket Log Management

2.2.1 How to login in mobile application?

- Citizen should be able to login via mobile application using Their mobile number & can send OTP to confirm the login. (OTP based Login). System should ask for the location capture permission while login.
- OTP should be of 6 digits.
- Once OTP is sent, system should disable sending OTP again for a given period of time.
- A cooldown period should be defined if user does defined number of incorrect attempts.

2.2.2 How to log ticket?

- Citizen can choose a type of complaint > enter the description > capture/upload relevant picture/video.
- Every ticket will have its unique ticket ID.

2.2.3 How a citizen can track the logged ticket?

- Once a ticket is submitted by the user, a text message should be sent to entered mobile number.
  Sample text message: Dear User, your ticket has been successfully registered. You can track your ticket status here (Link for tracking). You will be updated soon. Thank you using our services.
  [Name of the org].

- User will be redirected to the mobile application once it clicks on the link where user can view the status of the ticket.

  Sample Status View Page:
- User can select the month (by default current month):
- Based on the month selection, the tickets registered will pop up along with all other details:

TICKET ID	Ticket Description	Photo /Video	Status
1001	Abc	View	In progress
1002	ABcd	View	Resolved
1003	ABCDE	View	Resolved

- View will be hyperlinked in Photo/Video column where user can open the media uploaded.

2.3 Ticket Handling Management

2.3.1 Hierarchy of ticket handling should be defined from web application.

For Example: Assume 3 level of employee hierarchy in an organization, L1, L2, L3, where L3 being the highest & L1 being the lowest level. The ticket logged by the citizen should go to L1 first followed by L2 & L3.

Process Flow:

Citizen log ticket >L1 receives an email /text message for a ticket> L1 employee view/open the ticket > Accept/Reject the ticket (System will ask L1 to add reason of rejection (Mandatory)

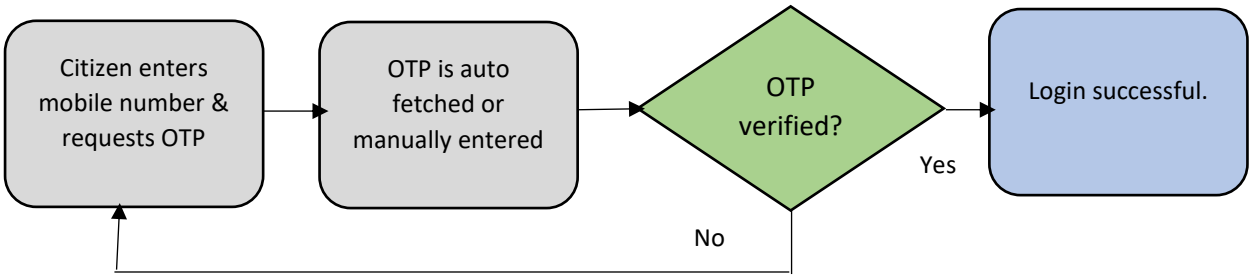
2.3.2 Escalation system:

If no action taken on a ticket for a defined period of time, it should be sent to the next level of hierarchy.

2.4 USE CASES

2.4.1 User Login

- User enters mobile number.
- User click on Send OTP.
- A pop up appears where OTP can be manually entered or auto fetched.
- Once OTP is received, system will ask for a permission of auto fetching of OTP.
- Once OTP is eneterd, system will check for its authenticity (allow user to attempt 3 times)
- If OTP is still incorrect third time, allow a cooldown period (configurable).
-



2.4.2 Ticket Log

User: Citizen

- Citizen logs in.
- Clicks “Create new ticket”.
- Selects the type of ticket.
- Enters the description.
- Upload any supporting images/videos.
- Submits it.
- Auto generated ticket ID received on mobile number entered.

2.4.3 Ticket Handling

User: Department users.

- User receive a notification (via email or text) of ticket submitted.
- User open the ticket, review it.
- Ticket status is updated (Open > In progress)
- Submits relevant resolution -> User can upload supporting documents, add description.
- Ticket status is updated (In progress > Resolved).

2.4.4 Ticket Escalation

User: Department users.

- If no action taken on ticket for a defined period of time, it will be sent to the next level of department user.
- User receive a notification (via email or text) of ticket missed.
- User open the ticket, review it.
- Ticket status is updated (Open > In progress)
- Submits relevant resolution -> User can upload supporting documents, add description.
- Ticket status is updated (In progress > Resolved).

2.4.5 Ticket Tracking

Users: Citizen

- Upon submission of the ticket, user will receive a text message on entered mobile number.
- A link will be added in the message & on clicking it, user will be redirected to the ticket tracking page in mobile app.
- User can view the TICKET ID, TICKET DESCRIPTION, ATTACHMENTS & STATUS of the ticket.

2.4.6 Master Data Management

Users: Power user

- Power user can create the department levels.
- Power can create the users in particular department.
- Hierarchy of ticketing process flow can be defined.
- Escalation matrix can be defined where user will choose duration of SLA.

2.4.7 Ticket Feedback Mechanism

Users: Citizen

- Upon resolution of the ticket, citizen will receive another text message.
- User can click on the link to open the ticket in mobile application.
- User can review the resolution.
- User can rate the resolution (Min 1 star & Max 5) & add a description (if any).
- Adding description will be non-mandatory.
- User can reopen the ticket if resolution is not up to the mark.
- The feedback will be captured in the database where Power user can view them.

2.4.8 Dashboard for Tickets (Analytics)

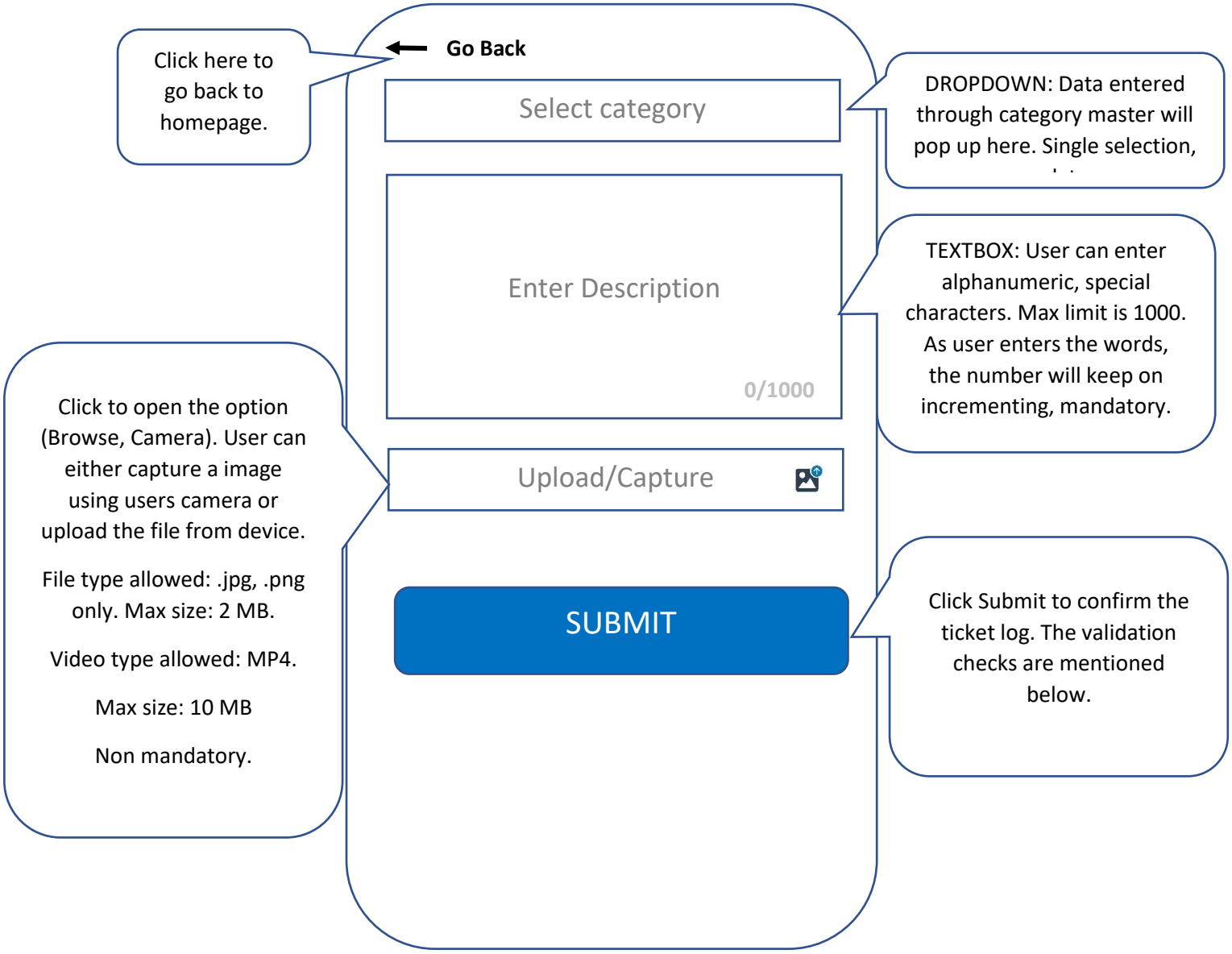
User: Power user

- Analytics for tickets will be given where Power user can view:
    - Total logged tickets.
    - Success ratio of ticket resolution.
    - SLA achieved percentage.
    - All the information can be viewed month wise & year wise.
    - User should be able to download the report in excel format.

2.5 Non-Functional

- **Scalability:** The system should support minimum 1000 concurrent users.
- **Security:** The mobile number entered & OTP generated should be stored in an encrypted form.
- **Backup:** The data should be backed up from time to time in case of a server outage.
- The Application will be cloud based.

3. Ticket Log Wireframe



VALIDATIONS while click on Submit:

- If category field is blank, throw error “Please select category type”.
- If Description is blank, “Please enter description”.
- If user enter any other file type “Only .jpg & .png is allowed”.
- If user enters bigger image than defined. “Image up to 2 MB Is allowed.

3 Architecture:

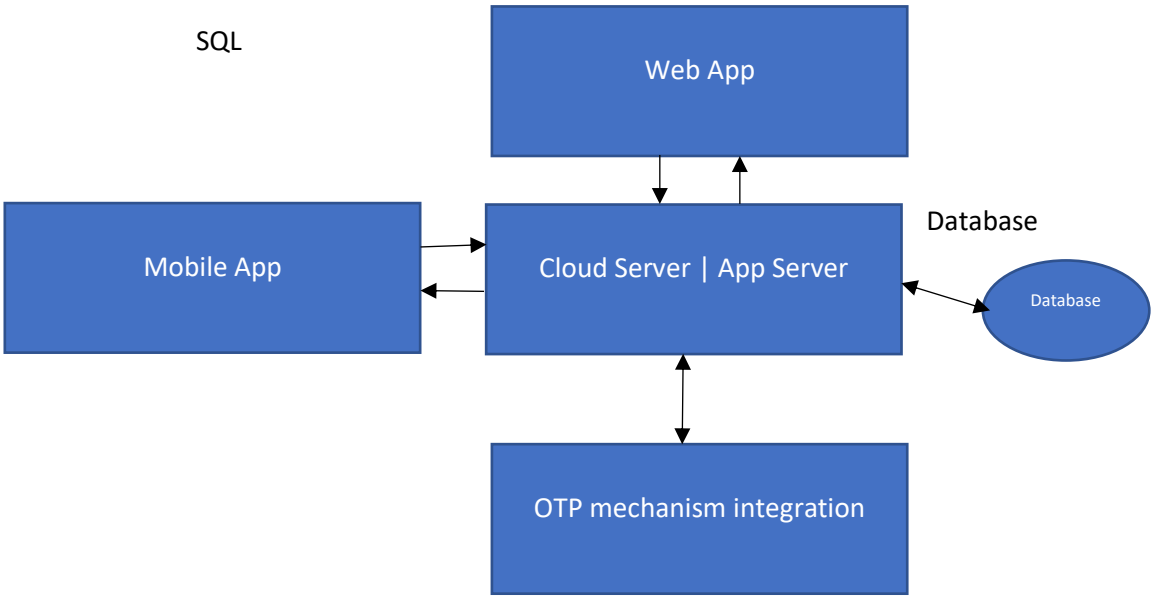
Frontend:

Web (.DOT NET)

Mobile: Flutter

Backend:

SQL



4 Assumptions & Constraints

- Citizen will have an active internet connection.
- There will be maximum 1000 users concurrently.
- Notification will be sent via Text message or E-mail.
- Compatibility of application: Android and IOS.
- User data will be stored securely in an encrypted form.

5. Sign Off (Internal)

Stakeholder Name	Date & Time	Signature
SI 1	07-03-2025	SPOC 1
S1 2		

6. Sign Off (external)

Stakeholder Name	Date & Time	Signature
S 1	07-03-2025	SPOC 1
S 2		