LastRites 1.0 Functional Specifications

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Modification History

Revision Number	Date	Initiator Name	email id	Role/Organization	Remarks
0.1	17-July-2020	Mousoomi Bora	mousoomi@gmail.com	IT & Software Consultant / CloudRainbow Technologies Pvt Ltd	Initial draft

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1 Introduction

This document details the functional requirements for the Mobile App LastRites.

2 Purpose of Document

2.1 Project Scope Overview

LastRites is an Application Management Platform as a One Stop Solution intended for the smartphone users developed by CloudRainbow Technologies for managing the needs of the people during the emergency of someone's demise. This document discusses the requirements for different modules that need to be incorporated in the application. There is a scope for the same application to be developed as a web application.

2.2 Application Overview

LastRites is one of the most popular smartphone applications that helps users to contact all the Service Providers who are directly or indirectly associated with the funeral process. In the post funeral process, remaining formalities can be successfully completed by the user as per their choice. The payments are deducted from the consumer's bank account (according to chosen methods of payments or can also be paid in cash after the funeral ceremony is completed).

High level steps:

1. There are total 12 modules in the application
2. Main module is - Information system and customer database
3. If we consider the whole process as a workflow, it will be a sequential workflow with many merge and split actions between starting point and end point.
4. The application can be used in 2 ways - Mobile application and Web application.
5. The user will connect to the application and request for some services.
6. The user information is saved in the database
7. For some sensitive services - the application needs to verify the user information with some special services like - hospital, and/or law and/or order and/or government agencies.
Once the user is proved to be authenticated then only he will be allowed for requesting other services like insurance, bank, employment etc.
8. Once the special services send the confirmation or verification status then the user's request which was pending till that point by the application can proceed with his requests for all the sensitive services.
9. The user has 2 options for payment - 1. Cash on delivery 2. Online
10. In case of online payment by the user, the service will be handled completely through the payment/ gateway.
11. With each user request for any service, the app will redirect the user to the corresponding service.
12. The service will send the acknowledgement or delivery information to the user.

Following are key concepts used in LastRites 1.0

1. This Mobile App connects Users->People from Funeral Society in the neighborhood->Doctors and hospital staff (if the departed soul had been admitted in the hospital before demise) -> Municipal Corporation of the city -> Lawyers->Bank / Financial Institution -> Insurance Company.

2. When someone dies, his/her immediate family member can avail this app.
   2.1 - There are three types of death - a) Natural b) Accidental c) On Medical Ground

   2.1.1   For Natural Death - No involvement of Police -> Immediate family members/ friends may use the app->reserve a slot in the nearby Funeral association (using the contact info and Map) who performs the holy ritual of Cremation or funeral irrespective of their religions -> perform the remaining procedures as directed by the app.

   1.1.2   For Accidental Death - Involvement of Police -> Need approval from the police -> May/ may not need for hospital visits -> if visits to the hospital, must receive confirmation from the concerned doctor as death else police may allow the person to take him/ her home or to the crematory site - > Immediate family members/ friends may use the app->reserve a slot in the nearby Funeral association using the contact info and Map who performs the holy ritual of Cremation or funeral irrespective of their religions.-> perform the remaining procedures as directed by the app.

   1.1.3   For death on Medical ground – Patient's death declaration by Medical Practitioner / Hospital Authority -> Ambulance Service to shift the deceased to his/her family at home/crematory site-□Immediate family members/ friends may use the app->reserve a slot in the nearby Funeral association (using the contact info and Map) who performs the holy ritual of Cremation or funeral irrespective of their religions -> perform the remaining procedures as directed by the app.

3. When the Funeral organization accepts the user's request, LastRites app displays the available slots for funeral on the same day or the following few days of the week.

   3.1 - Funeral options as per the religion -
       3.1.1 - Religion 1 -> Follow the funeral procedures as per Religion 1
       3.1.2 - Religion 2 -> Follow the funeral procedures as per Religion 2
                    and so on and so forth

4. This app notifies the user about the contact information of Ambulance service/Death Van to pick up the departed soul from home/ hospital **etc** till the graveyard.

5. The app also notifies the user about the contact information of vendors who can supply the required materials needed from the moment of the cremation or burial process till the funeral ceremony.

5.1 - Funeral ceremony options as per the religion -

    5.1.1 - Religion 1 -> Follow the Funeral ceremony as per Religion 1
    5.1.2 - Religion 2 -> Follow the Funeral ceremony as per Religion 2
                 and so on and so forth

6. The user can use the app to choose other options like(Checklist) –

a) Whether 'Provisional Death Certificate' needs to be issued or not:

i)   The user can use the app to contact the Municipal Corporation of the respective town/city.
ii)   The user can apply for the provisional Death Certificate of the person to the Municipal Corporation by submitting valid documents like Aadhar, PAN, Voter Card, Driving License etc. along with death declaration by the Doctor through this app.
iii)   Once Municipal Corporation authenticates the user and the deceased family member, they in turn contact the funeral society for cross verification purposes in order to ascertain the death claim by the user.
iv)   Once authentication is done and application is submitted, the Municipal Corporation takes two/ three days to issue the provisional death certificate of the deceased family member.

b) Whether the bank Account of the deceased needs to be closed or not:

i)   The bank can be automatically informed if the user accepts this option to select.
ii)   The family member can request the bank to temporarily discontinue any financial transaction of the person upon his/ her death

c) Whether the deceased Employers to be contacted or not

i)   Through this app, employer will be informed automatically where the deceased was an employee
ii)   Once the employer is informed, the link for provident fund and pension service will be sent to the nominee from the employer's side.

d) Whether Insurance is claimed/ not claimed:

i)   If required, the app can provision a link with the insurance company to whom the deceased paid insurance premium during his/ her lifetime.
ii)   The nominee can request the insurance company for the assured amount on behalf of the deceased.

7. The app allows the user to pay the amount charged by Ambulance/Hearse VAN, other vendors and Funeral Society in cash or other online payment options like PayTm, Google Pay, Net banking, Credit/ Debit Card. This option must be selected during the service request by the user.

8. Just after the end of each service activity by the user, the app will prompt the user to rate the services of each service activity in the scale of 1 to 5, where 5 is the Highest Satisfactory level service and 1 is the lowest.

High Level Process Flow Diagram
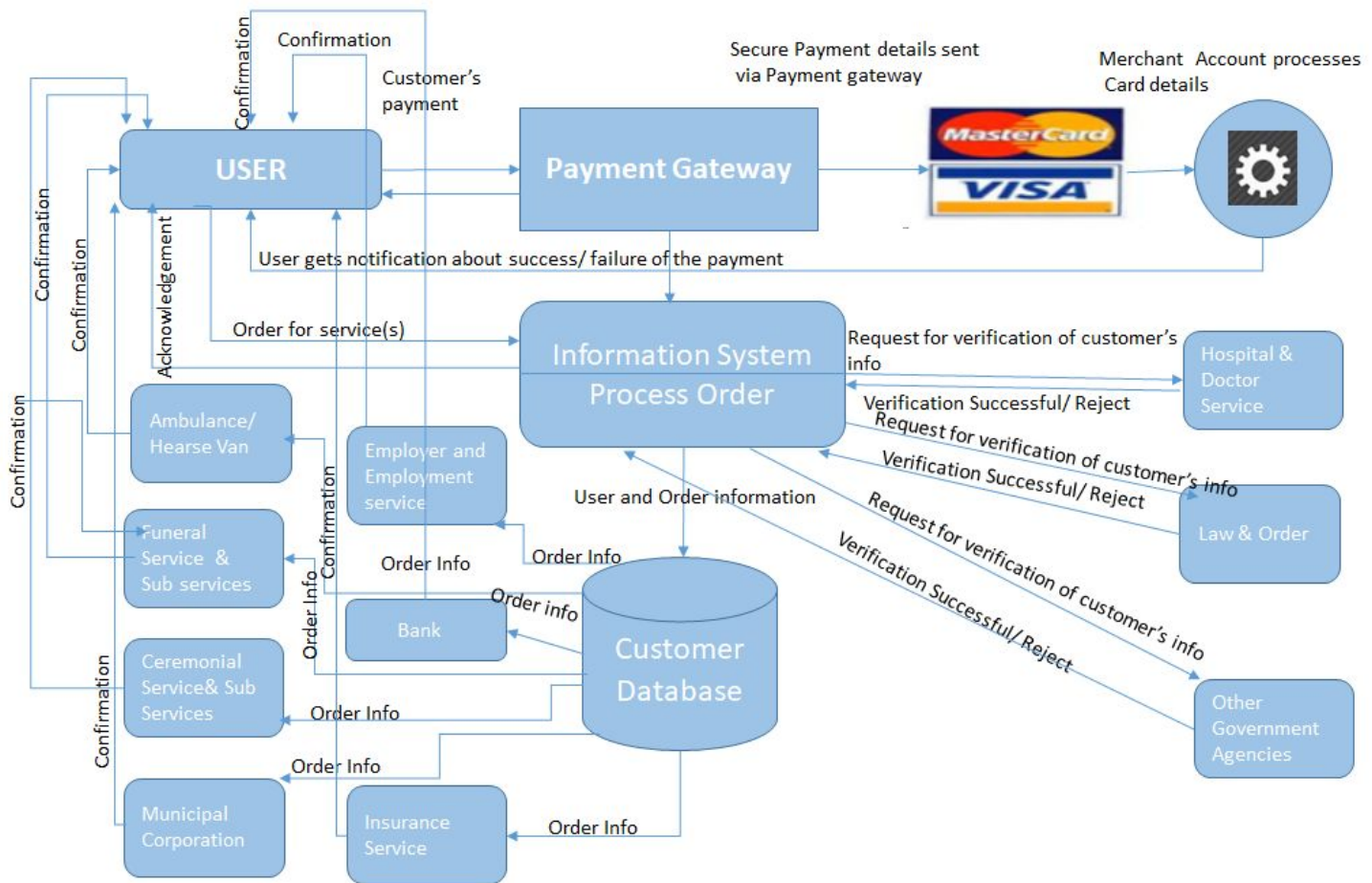
2.3 Assumptions

The project assumptions are as follows:

- The independent modules of the application are functional and available.
- The system functions as expected after integrating the modules and the required interfaces.

2.4 Dependencies

The following are the project dependencies:

2.4.1 The overall success of this App development project depends on the various Stakeholders / Service Providers who are directly or indirectly involved in providing services to the deceased person.

2.4.2 Government intervention with Stakeholders in facilitating the App development for social causes.

3   Target state vision

Provide a seamless end-to-end support system to a family, post the bereavement of a family member, through a mobile app.

4 FUNCTIONAL REQUIREMENTS

The Functional Requirements aligned with each feature are enumerated below. These are the software competencies that must be available in this project. For easy reference, each requirement has been uniquely identified in a proper order.

THE FUNCTIONAL REQUIREMENTS WILL HAVE THE FOLLOWING NAMING CONVENTION

FR-NN: Module ABBREVIATION: Requirement Name

IN-DB	Information System & Customer Database
AS	Ambulance/ Hearse Service
FS	Funeral Service & Sub-Services
CS	Ceremonial Service & Sub-Services
MS	Municipal Corporation Service
ES	Employer & Employment Services
BS	Bank Service
IS	Insurance Service
HS	Hospital & Doctor Services
LS	Law & Order Service
GS	Other Government Agencies Service
PS	Payment Gateway Service

4.1 FR-01: Information System & Customer Database

4.1.1 It is the main module of the application

4.1.2 It processes all the customer request

4.1.3 Submits the information related to customer and other requested service in the backend service i.e., the database

4.1.4 The database organizes the customer data and associated information

4.2 FR-02: Ambulance/ Hearse Service

4.2.1. The user requests ambulance/ hearse service through the mobile app LastRites

4.2.2 The app accepts the request and store the information in the database

4.2.3 Thereafter the app will redirect the request to corresponding Ambulance/ hearse service

4.2.4 The Ambulance/ Hearse service sends the confirmation message to the user bypassing the app.

4.2.5 The user pays for availing the service either through cash or by using debit card/ Credit card/net banking

4.3 FR-03: Funeral Service & Sub-Services

4.3.1. The user requests funeral service and other related services as per its religion through the mobile app LastRites

4.3.2 The app will accepts the request and store the information in the database

4.3.3 After that the app will redirect the request to corresponding funeral service

4.3.4 The funeral service sends the confirmation message to the user bypassing the app.

4.3.5 The user pays for availing the service either through cash or by using debit card/ Credit card/net banking

4.4 FR-04: Ceremonial Service & Sub-Services

4.4.1. The user requests Ceremonial Service & Sub-Services and other related services as per its religion through the mobile app LastRites

4.4.2 The app will accepts the request and store the information in the database

4.4.3 After that the app will redirect the request to corresponding Ceremonial Service & Sub-Services

4.4.4 The Ceremonial Service & Sub-Services sends the confirmation message to the user bypassing the app.

4.4.5 The user pays for availing the service either through cash or by using debit card/ credit card/net banking

4.5 FR-05: Municipal Corporation Service

4.5.1. The user requests municipal corporation service and other related services to get the provisional death certificate of the deceased through the mobile app LastRites

4.5.2 The app accepts the request and store the information in the database

4.5.3 After that the app will redirect the request to corresponding Municipal Corporation service

4.5.4 The municipal corporation service sends the confirmation message to the
    user bypassing the app.

4.5.5 The user pays to the service (if required) either cash or by using debit card/ credit
    card/ net banking

4.6 FR-06: Employer & Employment Services

4.6.1. The user requests employer & employment service to complete any immediate
    formalities on behalf of the departed soul through the mobile app LastRites.
    The user will also be able to initiate the pension formalities through the app.

4.6.2 The app will accepts the request and store the information in the database

4.6.3 After that the app will redirect the request to corresponding employer &
    employment service

4.6.4 The employer & employment service sends the confirmation message to the
    user bypassing the app.

4.6.5 The user pays to the service (if required) either by cash or by using debit card/
    Credit card/ net banking

4.7 FR-07: Bank Service

4.7.1. The user requests bank service to complete any immediate formalities
    on behalf the departed soul through the mobile app LastRites.
    The user can initiate the processes like - stopping services of ATM, online banking
    etc through the app.

4.7.2 The app will accepts the request and store the information in the database

4.7.3 After that the app will redirect the request to corresponding bank service

4.7.4 The bank service sends the confirmation message to the
    user bypassing the app.

4.7.5 The user pays to the service (if required) either by cash or by using debit card/
    Credit card/ net banking

4.8 FR-08: Insurance Service

4.7.1. The user requests insurance service to complete any immediate formalities
    on behalf of the deceased family member through the mobile app LastRites.
    The user can initiate the processes like - discontinue premium payment or
    withdrawal of sum assured amount as per the insurance policy through the app.

4.7.2 The app will accepts the request and store the information in the database

4.7.3 After that the app will redirect the request to corresponding insurance service

4.7.4 The insurance service sends the confirmation message to the
    user bypassing the app.

4.7.5 The user pays to the service (if required) either by cash or by using debit card/
    credit card/ net banking

4.9 FR-09: Hospital & Doctor Services

4.9.1. The user requests hospital or doctor service on behalf of the deceased family member through the mobile app LastRites. The user can request doctor's certificate or other medical report of the deceased person through this app.

4.9.2 The app will accepts the request and store the information in the database

4.9.3 After that the app will redirect the request to corresponding hospital/doctor service

4.9.4 The hospital or doctor service sends the confirmation message to the user bypassing the app.

4.9.5 The user pays to the service (if required) either by cash or by using debit card/ credit card/ net banking

4.10 FR -10: Law & Order Service

4.10.1 This is completely a standalone module of the application

4.10.2 The application avails this module for any legal matters

4.10.3 The application sends the relevant information about the user like PAN Card or address proof etc to this service for verification/ authentication in case the user requests for sensitive services like bank, insurance, employment, will etc.

4.10.3 The service verifies the user and sends the verified/ reject message to the application.

4.11 FR -11: Other Government Agencies Service

4.11.1 This is completely a standalone module of the application

4.11.2 The application avails this module for verification purposes of the user so that the user can be allowed to avail the requested service(S).

4.11.3 The application sends the relevant information about the user like PAN Card or address proof etc to this service for verification/ authentication in case the user requests for sensitive services like bank, insurance, employment etc..

4.11.4 The service verifies the user and sends the verified/ reject message to the application.

4.12 FR-12: Payment Gateway Service

4.12.1 This is completely a standalone module of the application

4.12.2 User avails this module if he/she chooses to pay online for the services availed through the LastRites app.

4.12.3 The user pays the payment using his mobile or through the available option as mentioned in the app during the time it received the request.

4.12.4 User's payment details are securely sends via payment gateway

4.12.5 The merchant accounts (Ambulance, Funeral etc) processes card details.

4.12.6 The user gets notification from its bank with the message - 'payment successful or denied' by the corresponding service availed already about the debited amount.

5 SCALABILITY REQUIREMENTS

5.1 SR-1: SCALABILITY

LastRites should be scalable with enhanced services as per the customer requirement.
The application must be able to accept as many users as it can at the same time along with their data.
The storage of the application must be optimized and scaled as per the requirement.

5.2 SR-2: AVAILABILITY

The application will be in High Availability mode all the time that ensures end-to-end delivery of the services.
Users can use the contact information in time of emergency or issues faced.

5.3 SR-3: FAILOVER

In case the application fails for any technical issue, there will be one standby application that will continue to function as a standard process of recovery.

5.4 SR-4: MAINTAINABILITY

A support team will be always available for 24 x7 technical support to the users.

5.5 SR-5: INTEGRATION REQUIREMENTS

REST APIs will allow integration to other programs as web services.

6 PERFORMANCE REQUIREMENTS

As soon as users log in the application, the application should able to load the page within 3 to 5 seconds so that the users do not need to wait for the application to respond for a long time.

7 SECURITY REQUIREMENTS

7.1 LastRites will have security support for LDAP and Active Directory as perimeter security.
7.2 Users information and all the credentials related to the payment must be secure and accessible to the authorized persons only.