Alhambra Sports and Welfare Club Operations Management System

Software Requirement Specification

Version 1.0 | 28th October 2018

Group Project
SCS 2018
Programming IV

Group No: 03

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1.0 Problem domain

The sports and welfare club of Hotel Ramada doesn't have proper computer system to manage their club's incomes and expenses properly. They are facing this troubles when managing the club and it's activities.
- No proper computer system to store their members' details.
- No proper way to keep records of incomes and expenses of the club.
- They have a loan service for their members. There is no way to keep records of offered loans details with corresponding members. They have to calculate relevant payments manually and they haven't a reminder system to remind monthly installments.
- The club conducts some events in the hotel and they need to keep details of each event with corresponding transactions.
- Executives of the Club want to print income expenses reports belong to relevant time period when they needed (Death donations also included).
- Executives want to deliver special messages to their members through emails.
- At the movement they haven't online payment methods to get donations.

2.0 Project Scope

2.1 In scope

A responsive web system which has five user authentication levels with different loggings . (President, Secretary, vice President, Treasurer, System Admin)
- Register members in the system keep their records in a database.
- Record, view, delete and edit incomes and expenses with related logical functions.
- Manage offering loans and view current and history data as reports.
- Generate and send email reminders regarding to the offered loans.
- Grant privileges to relevant users to add, update, edit, delete and view event details and corresponding money transactions.
- Generate invoices and reports to print and send emails to the specific members when needed.
- Critical message broadcasting and unicasting system.
- Payment gateway to perform online Donations.

2.2 Out of Scope

When offering dead donations and loans, the applicant should be approved by HR department of the hotel. This system cannot handle this approval because this system cannot sync with the current system of the HR department.

3.0 User roles: -

- President:
    - Send mails to Committee members and Registered Members
    - View Monthly income expenses reports of the System
    - Create schedules for special events and mail them to the members(optional)

- Secretary:
    - Member management (add, update, delete)
    - Enter loan, Dead Donation details, Print dead donation,loan application
    - Email

- Vice President
    - Send mails to members (Committee, registered members)
    - View All the records of the System
    - Create schedules for special events and mail them to the members(optional)

- Treasure
    - Income and Expenses

- Admin
    - Manage whole system when needed

4.0 Requirements

4.1 Functional Requirements

- **User Login**

    User logins for five different authentication levels. (President, Vice president, Secretary, Treasurer, System Admin). From this different users can login to their own dashboard and working with the system.

- **Member Registration and Management**

    The System has registered members. For this system need to Register them and perform update ,delete operations on their saved details. To reach this following sub functionalities will implement on the system
    - Register members to the system.
    - View member details
    - Update member details
    - Delete members

- **Incomes Management**

  Alhambra sports club have to manage their incomes and update their total money balance according to incomes. To Perform this requirement ,system provides following functionalities.
  - Record Income details according to its income category
  - View recorded income details
  - Update recorded details
  - Delete recorded details
  - Update total balance table

- **Expenses Management**

  Alhambra sports club have to manage their Expenses and update their total money balance according to Expenses. To Perform this requirement ,system provides following functionalities.
  - Record Expenses details according to its expenses category
  - View recorded expenses details
  - Update recorded details
  - Delete recorded details
  - Update total balance table

- **Offering Loans Management**

  The club provides the 10 month loan facility to its registered members. The loan amount is fixed size(15000/=) and the total interest for the loan is 1650 Rs. If a member request a loan, then system checks the availability of the corresponding member and his guarantors. If the requested member eligible for the loan system records his details and provide the loan. This process will update the incomes and expenses in the system. Following functionalities provide above facilities to the user.
  - Validate the member who requested the loan
  - Enter the provided loan details
  - Update loan details
  - Edit loan details
  - Delete loan details

- **Offering dead donations management**

  The club provides dead donations to its members. Each member can get donation for his parents or him self. System need to update the donation details with the system. Following functions achieve these tasks.
  - Validate the member who requested for the donation
  - Enter the donation details
  - Update donation details
  - Edit donation details
  - Delete donation details

- **Create event schedules**

  The club has to manage several events for a year. Therefore the president and the vice president want to create event plans and mail them to the members. The system has following functionalities to perform this task.
  - Create event schedules
  - Update event schedules
  - Delete event schedules
  - Email schedules to the members.

- **Generate Monthly invoices and reports**

  Committee members want to view monthly reports of the incomes and expenses. Therefore system has to generate reports and invoices and display them to the committee members. Functionalities for this task shown below.
  - Generate monthly invoices and reports and save them to the database
  - Email,display invoices and reports

- **Critical Message Broadcasting and Unicasting System**

  Some time committee members need to broadcast or unicast a notification among the club members. For this system need to include following function to reach this goal.
  - Send a Notification to all the members via email
  - Send Messages to a specific member via email

- **Payment gateway**

  The club depends on incomes. Therefor they accept external donations for the club. Donators can use the electronic cards to make donations for the club. For this System need to integrate with a payment gateway system.

4.1 Non Functional Requirements

- **Usability**
  - Easy to use and consistent UI throughout the web application

- **Security**
  - Protect sensitive details like administrative details and income analytics reports, member details through access levels and information security.

- **Portability**
  - Can easily operates from any browser.
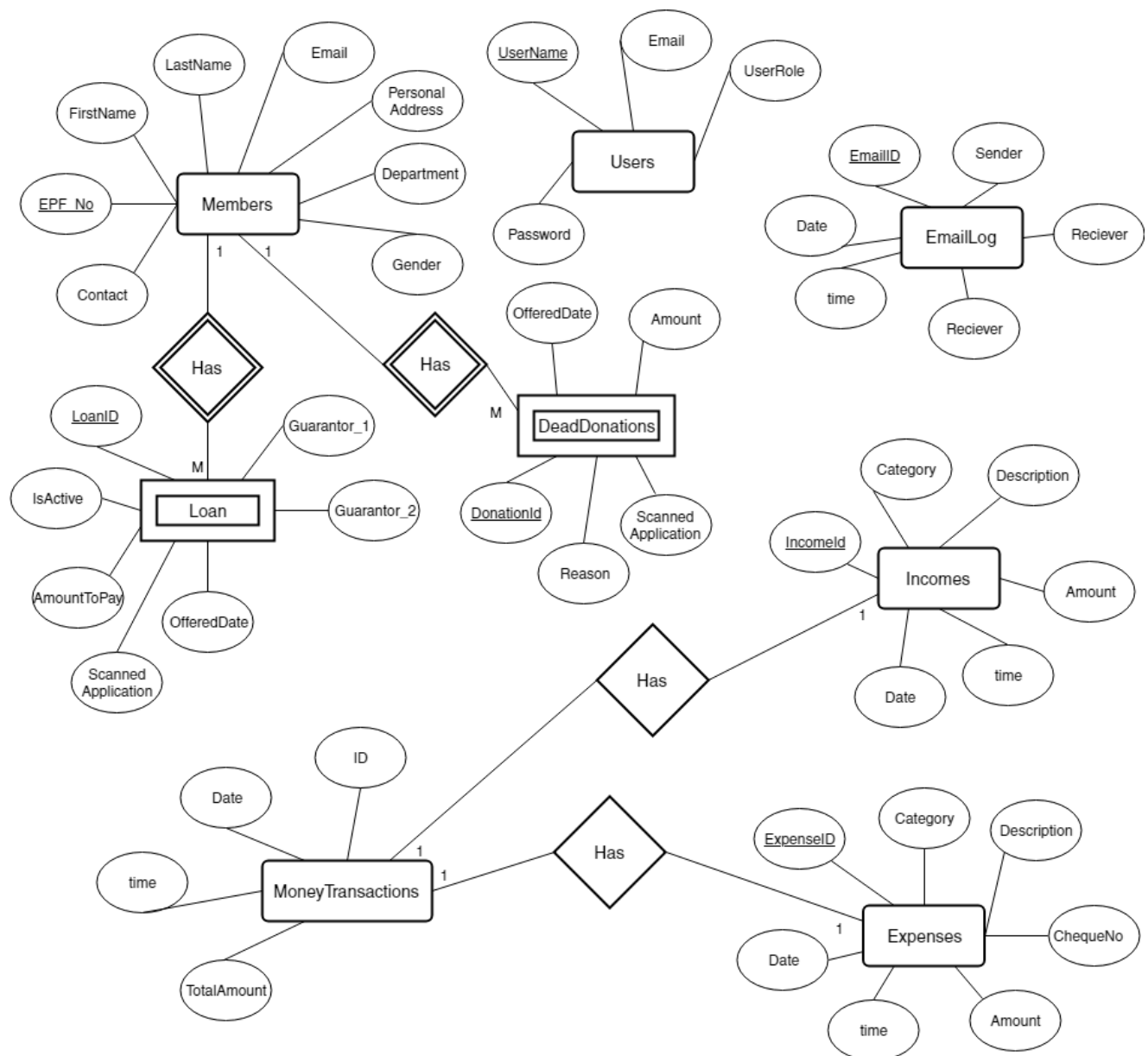
- **Dependency**

  - System functions are depends on the authority of the Hotel Management and its rules and regulations.

5.0 Constraints and Limitations

- System will be bounded by the limitations which occur due to the hotel rules and regulations.

6.0 Diagrams:-

6.1 Entity Relationship Diagram

7.0 Responsibility of Group Members

Name	Index Number	Responsibility
ABEYWICKRAMA W.D.K.S	16000031	● User login and authentication ● Member registration and management ● Income management ● Unit testing
EKANAYAKE E.M.P.T.B	16000439	● Offering loans Management ● critical message broadcasting and unicasting system ● Unit testing
RATHNAYAKE M.S.M.	16001206	● Finalize the user interfaces with user experience ● Dead donation management ● Payment gateway ● Unit testing
WIJESOORIYA M.T.	16001613	● Expenses management ● Create event schedules ● Generate monthly reports ● Unit testing

Name	Registration Number	Index Number	Signature
ABEYWICKRAMA W.D.K.S	2016/CS/003	16000031	
EKANAYAKE E.M.P.T.B	2016/CS/043	16000439	
RATHNAYAKE M.S.M.	2016/CS/120	16001206	
WIJESOORIYA M.T.	2016/CS/161	16001613	