**SOFTWARE** **REQUIREMENT** **SPECIFICATION**

**Research Title:** *[Edit this field:]*

**Members:** *[Edit this field:]*

# A. General Description

1. **Background Study**

*[Edit this field: For the background studies, give a brief description what is the purpose of your project, its main functionality and what are the scope of your project]*

1. **Similar System Information**

*[for example: a typical Information System]*

[The system main functions are recording such data and information; it can also retrieve and compile information that will help lessen the processing time and has a database to avoid data lose that is the main problem of the organization from the current time and the past.]

**Table 1. Technology Gap Analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| **Existing***.*  **Technology** | **Strength** | **Weakness/Gap** | **Proposed Technology** |
| *[this are just example]*  Recording by the used of pen/paper for manual recording | Can retrieve data and store data | Prone to degradation and termite invasion and it takes time to retrieve data. | A web- based profiling system which can store multiple data and can retrieve faster data. |
| *[this are just example]*  Compiling the gathered data in a file drawer. | Staff / Personnel can find the compiled the data easily, | Prone to degradation and termite invasion and it takes time to retrieve data. | All the data gathered will be stored in data based to avoid data lose. |
| *[this are just example]*  *Similar Information System (Offline)* | Fast and easy retrieval of data, | -Low capacity, that can lead to insufficiency of data in the future.  -Unable accessibility for online transaction | Proposed a web hosting / cloud storage technology. |

1. **Users Goal**

The following table describes the identified user characteristics upon their duties and functions of using the system.

*[this are just example; remove this text field after you edit this template]*

**Table 2. User Characteristics**

|  |  |  |
| --- | --- | --- |
| **User** |  | Role |
| Admin |  | Add, update and delete accounts |
|  |  | View all users of the Web portal |
|  |  | View all the pending account of the user |
|  |  | Approved pending account |
| Super User |  | Update events and programs |
|  |  | Approved pending request for event /suggestion |
|  |  | Approved pending account of the user/youth |
|  |  | Check current activities and programs/news |
|  |  | Communicate with other  organization through chat box |
|  |  | Send files through chat box |
| User type 1 (Staff) |  | Log in |
|  |  | Upload the activity/programs |
|  |  | Add current news |
|  |  | Communicate to other organization through chat box |
|  |  | Send files through chat box |
| User type 2 (Applicant) |  | Log in |
|  |  | Create account |
|  |  | Register to the activities and programs |
|  |  | Download forms for activities |
|  |  | Communicate to the staff through chat box |

1. **User Problem Statement**

*[this are just example; remove this text field after you edit this template]*

The following table lists down what each type of user wants, as defined by the users themselves, as well as the list of what the user needs as defined by the developers.

|  |  |
| --- | --- |
| **User** | **Problems Identified** |
| Applicant | The process in requesting activities and forms for some programs and its current status of approval takes time. The status of the request forms for the programs in the Youth and sports Development is slow. The reason of delay would not be easily to know and the processing of request documents and information is tedious. |
| Staff | Its tedious to the department staff in trace where the request letter easily is, and the record of the current events. |
| Head office staff | It would be tedious, time consuming and to manually track the request letter of the entire office since the officer in charge has to check all the approving body secretary the status of the request form and documents. It would be an additional task for them to monitor the status of the request. |
| Approving body | The monitoring of the approved request letter would be difficult for them. |

1. **Use Case Scenario**

Create a success scenario, failure scenario and variation for each user type.

1. **General Constraints**

*[this are just example; remove this text field after you edit this template]*

*[Log here the limitation of the system.]*

.

# B. Functional Requirements

## Functions and Features

*[this are just example; remove this text field after you edit this template]*

The system is divided into two main functions, Card Member Management and User Management.

1. System Registration Management
   * The MYSDO Office Management Staff, SK Staff can access this function. As well as the Youth registration that is only registered as applicant type of user and has limited access to the system defined by the developer.
   * This function includes adding new member and youth, updating member and youth information, as well as deleting and retrieving needed information of the youth. And is also storing information collected by the Staff and officers.
   * The delete function allows the users to control information that is not necessarily needed but not deleted the data entirely and stored it in the achieve section.
   * Print Form function is also included.
   * Reports generation is a highly recommended function that can be included
2. User Management
   * This function is only accessible to the Super user and Admin
   * Add, update and delete function is included
   * Role Management is also included here

The features of the system include the following:

1. Member as well as user information provided to the system will be stored in the cloud database.
   * Wi-Fi capability for mobile user as the system provide UI for mobile app.
   * This requirement in requisition forms; are all depends on its use.
2. Member and User information shall be accessible via queries and reports
   * Different users should be able to run queries using the user interface
   * Given the capability of SQL, this requirement is able to be satisfied
3. The data stored should be able to be manipulated through forms.
   * Items and other data should be able to be added and updated through the use of forms.
   * Very high criticality
   * The only factor that can be encountered here is the user of the system not being able to use it correctly. This will be overcome by training those who will be using it.
   * This requirement is dependent on requirement one.

## 2. Use CASE Diagram

The context diagram provided below describes the relationship between the system and the different entities involved

*[remove this text field after you edited it; draw the Use Case diagram for you system project]*

## 3. User Requirements

*[this are just example; remove this text field after you edit this template]*

The [ *your title for your system project*] has three main types of users: Super admin, Admin and Applicants.

*[this are just example; remove this text field after you edit this template]*

1. **Super Admin (IT Personnel) –** Superadmin are responsible for upkeep, as well as software and database management. They are also responsible for adding and managing Admin, as well as password management, for when a user forgets their password. They are considered as the main user of the system. They are responsible for creation and management of each user. They can also manage member information as well as card printing and report generation.
2. **Admin (SK Staff) –** They are under the management office MYSDO, and are responsible for managing applicant information and release of documents. They are also responsible printing of forms of each applicant that has request of it. MYSDO can also be categorized under this type of user.
3. **User (Registered User)–** They are the one who will interact with the application. For tracking information, updating their profile, make a transaction etc.

## 4. Data Dictionary

## Logical Data Model/Data Dictionary

**SUPER USER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FIELD** | **DATA TYPE** | **FIELD LENGTH** | **CONSTRAINTS** | **DESCRIPTION** |
| ID | INT | 50 | PRIMARY KEY | ID Auto generates |
| Username | VARCHAR | 50 | NOT NULL | Username |
| Password | VARCHAR | 50 | NOT NULL | Password |

**ADMIN**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FIELD** | **DATA TYPE** | **FIELD LENGTH** | **CONSTRAINTS** | **DESCRIPTION** |
| ID | INT | 50 | PRIMARY KEY | ID Auto generates |
| Username | VARCHAR | 50 | NOT NULL | Username |
| Password | VARCHAR | 50 | NOT NULL | Password |

**REGISTRATION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FIELD** | **DATA TYPE** | **FIELD LENGTH** | **CONSTRAINTS** | **DESCRIPTION** |
| ID | INT | 50 | PRIMARY KEY | ID Auto generate |
| First\_name | VARCHAR | 255 | NOT NULL | First name |
| Last\_name | VARCHAR | 255 | NOT NULL | Last name |
| Middle\_name | VARCHAR | 255 | NOT NULL | Middle name |
| Contact\_# | VARCHAR | 255 | NOT NULL | Contact number |
| Status | VARCHAR | 255 | NOT NULL | Status |
| Email | VARCHAR | 255 | NOT NULL | E mail address |
| User\_name | VARCHAR | 255 | NOT NULL | Username |
| Image | LONG BLOB |  | NOT NULL | Image |

## i. Functional Requirements

1. **Table 1. Functional Requirements for System Administrator**

|  |  |  |
| --- | --- | --- |
| **Functions** | **Type** | **Event** |
| **Log in** | Essential | User enters a valid Email and password. |
| **Manage Superuser** | Essential | Add, update and delete  Superuser. |
| **Manage password** | Essential | Provides new password to Superuser admin Admin incase they forgot their password. |

1. **Table 2. Functional Requirements for Superuser**

|  |  |  |
| --- | --- | --- |
| **Functions** | **Type** | **Event** |
| **Log in** | Essential | User enters a valid Email and password. |
| **Manage User** | Essential | Add, Update, Delete user. |
| **Manage member** | Essential | Add, Update, and Delete member. |
| **Print requisition** | Essential | Printing of requisition Forms and Documents. |

1. **Table 3. Functional Requirements for Admin**

|  |  |  |
| --- | --- | --- |
| **Functions** | **Type** | **Event** |
| **Log in** | Essential | User enters a valid Email and password. |
| **Manage User** | Essential | Add, Update, Delete user. |
| **Print requisition** | Essential | Printing of requisition Forms and Documents. |

# C. Non-Functional Requirements

## Interface Requirements

*[this are just example; remove this text field after you edit this template]*

The Web Portal: Municipal Youth and Sports Development Office of Sta.Cruz Laguna user interface is a friendly user, and has a logo of Provincial Capital of Laguna at the left side and it appears all the functions of the system.

## i. Software Interfaces

[State the following for each such application: name of application, external owner of application, interface details (only if determined by the other application).

*[Create an “About” page regarding the; remove this text field after you edit this template]*

## ii. Communications Interfaces

Online will be the way for the different computers to communicate. All the database will be uploaded using Online communication.

## b. Data Conversion Requirements

The system will automatically upload all the database from the old system to the new and developed system.

## c. Hardware/Software Requirements

Hardware:

* PC – running on MAC, Windows,
* Android/ iOS smartphone
* Web Server
* Router/Switch

Software:

* Web Browser
* Generic Mobile App

## d. Operational Requirements

*[this are just example; remove this text field after you edit this template]*

The staff or the employee who has a authority to use the system will encode the data of all the Web Portal: MYSDO applicants in the system and after that encoding, the Admin/Superuser will print the requisition form.

## Security and Privacy

*[this are just example; remove this text field after you edit this template]*

A. Consequences of breach of security:

1. Loss or corruption of data – If the data is loss or being corrupted the system can’t access all the database in the system.
2. Disclosure of secrets or sensitive information – there can be a problem in managing the system and the database.
3. Disclosure of privileged/privacy information about individuals – they will check all the data in the database, communicate with the employee, and make sure that if that things happen they will be more secure in the system and the database.
4. Corruption of software or introduction of malware, such as viruses – the employee must have to do something to ease that problem, inquire an IT expert to solve the problems like this. B. Types of security::
5. Physical security.
6. Password for each account
7. Admin security
8. Accounts for each user
9. Super user is the only person which can view all of the data

## ii. Reliability

A. *[remove this when you finished editing this text field. Answer this, the damage that can result from system failure, what will happen when;]*

* Loss of data
* Backlogs will happen
* The applicants will have to wait for the system to be function again before they can get in access [for example: Web Portal].
* The productivity of the staff will slow down.

**iii. Recoverability**

[Answer the following questions in this section:

1. In the event the application is unavailable to users (down) because of a system failure, the system will be restored 2 hours after the system failure.
2. In the event the database is corrupted, the database must be capable of being restored to its condition of no more than 1 hour before the corruption occurred”.
3. If the processing site (hardware, data, and onsite backup) is destroyed, the application that be restored no more than 1 hour after the interruption occurred.

## iv. System Availability

Although the office hours MYSDO is from 8:00 am to 5:00 pm every weekdays, the webportal is available to the users 24 hours of a day, everyday of a week.

**v. Capacity**

The system will be able to hold a large amount of data.

## vi. Data Retention

[Describe the length of time various forms of data must be retained and the requirements for its destruction.

For example, “The system shall retain application information for 3 years”. Different forms of data include:

system documentation, audit records, database records, access records.]

## vii. Error Handling

the Error handling is fixing an unexpected bug in the system there are two types of error one is for developing error, this error occurs during development stage of the system. While logical error is error in the condition of the code this two error occurs during the run-time of the system

**viii. Validation Rules**

System validation rules refers to the validation of data before saving it into the database [pending request,]

## ix. Conventions/Standards

System conventions and standard are the quality or the specification discussed in developing the system by following the conventions and standard in developing system it can produce a system that is effective and efficient.

For example: Microsoft standards are followed for windows, Institute of Electrical and Electronics Engineers (IEEE) for data formats, etc.]

# D. Operational Scenario

*[this are just example; remove this text field after you edit this template]*

**Scenario A: Initial Encoding of Data**

The Superuser and Admin shall input the data of the applicant in the system.

**Scenario B: Adding Dependents**

The Superuser and Admin can add dependents on each member.

## Scenario C: Printing of requisition Forms

After encoding the data of the Web Portal: MYSDO applicants, the Superuser and Admin shall print immediately the requisition form of the applicant whenever it is checked or the applicants’ requirements have been provided.

**Scenario D: Updating Web Portal MYSDO member’s Data**

The Superuser and Admin have the authority to update MYSDO member’s data if needed.

**Scenario E: Web Portal: MYSDO’ Data**

The Superuser and Admin have the authority to edit the Web Portal: MYSDO member’s data if needed.

**Scenario F: Deleting Web Portal MYSDO member’s Data**

The Superuser and Admin have the authority to delete the Web Portal: MYSDO data.

# SOFTWARE DEMONSTRATION

The undersigned acknowledge they have reviewed the *<Project Name>* **Software Product Specification and System Requirements** listed are document and agree with the approach it presents. Any changes to this Requirements Definition will be coordinated with and approved by the undersigned or their designated representatives.

Recommendation:

|  |  |
| --- | --- |
|  | |
| Printed Name Over Signature: |  |