SOFTWARE REQUIREMENTS SPECIFICATION

for

PUBLIC GRIEVANCES READRESSAL SYSTEM

Version 1.0

Prepared by :

- **Manchem Satya Venkata Sandeep (2019UGCS056R)**
- **Koppaka Dheni Mehar Aditya (2019UGCS054R)**
- **Daravath bharath naik (2019UGCS032R)**

Submitted to : Dr. Jayadeep Pati sir
Professor, IIIT Ranchi

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1 Introduction

public Grievance Redressed system is a management and control related process. This project is created to bring transparency and flexibility in the administration system. This system is an online platform where people can communicate with each other. This system acts as an online interface for citizens to communicate with administrative body. This system also allows the citizens to share their ideas, invoke discussion, issue complaints and create suggestion/petitions for the improvement of the city administration. This application is an automated process. This application is user-friendly and online interface for the citizens.

1.1 Purpose

The purpose of an public Grievance Readressal System is to provide a platform for citizens to lodge their complaints related to various services they receive from the government. It bridges the communication gap between the government and the citizens, and provides citizens a platform through which they can get their grievances addressed in a timely and transparent manner.

1.2 Project Scope

This software is to create a cell from the existing government machinery for assigning the reported incidents to the concerned department and following up with them to resolve the issue within the designated resolution period.

1.3 Document conventions

The document convention is very simple. All major section headings are in bold. Hyperlinks are indicated by blue.

1.4 Definition , acronyms , abbreviation

HO-higher officer
OS - operating system
API - application programming interface
S/W - software
H/W - hardware

ROM - read only memory
RAM - random access memory
SRS - software requirements specifications.

1.5 References

Software Engineering, Sixth Edition, Roger S. Pressman.
PHP: The Complete Reference, Steven-Holzne

1.6 Overview

Completion of the development process will result in a software package that will provide user-friendly environment, which is very easy to work with, even for people with very little knowledge of computer.
Management of various tasks is incorporated in the package and will deliver the required information in a very easy to use and easy to access manner.
This package will provide accuracy, efficiency, speed and easiness to the end user. Since the system is verified with valid as well as invalid data and is run with an insight into the necessary modifications that may require in the future, it can be maintained successfully without much.

2 overall description

2.1 user classes and characteristics

There are four basic users – PUBLIC, ADMIN, OFFICERS, and HIGHER OFFICIALS.
Public can submit their grievance to a particular department, and get a track id.
Grievance will be forwarded to concern department. Once the complaint is rectified, the department officer updates the grievance status. It will be notified to the public.
Public can view grievance status (open, closed, pending). If particular department officer does not solve the grievance, it will escalate to higher official.
Higher official can view all reports.
Admin can add department, view all the reports

2.2 Operating Environment

Client on Internet
Web Browser, Operating System (any)
Web Server
Operating System (any)
Data Base Server
Oracle, Operating System (any)
Development End
PHP, HTML, XML, Oracle, OS (Windows)
Hardware Interface
Recommended Requirements:
Client Side
Browser: Chrome, Firefox
Processor:
All Intel or AMD - 1 GHZ
RAM: 256 MB
Disk Space: 200MB
Server Side
Processor:
All Intel or AMD - 1 GHZ
RAM: 2GB
Disk Space: 3GB

2.3 Design and Implementation Constraints

the major constraints in the development of the software:
1.Computers at various centers must be able to communicate in real time. For that internet connection is required.
2.Limited amount of memory can cause issues if the database is too large
3.The software will use password for login. Security of the software depends on the password protection and also on the network communication.
4.The algorithm followed will not be an optimized one, as an optimized algorithm will be too much computationally heavy. However, it will give fairly good results in most cases.
5. Good form of integration between the database and the java application

2.4 Assumptions and Dependencies

The software will be made with the following assumptions: 1. The users have computers with Linux installed.
Internet connection is well available in all the branches and the computers there can communicate with each other in real time
2. Each user must remember his password and login ID, failing which, he cannot login into the system. The manager will be the only one to have the right to reset password.
3. User should not tamper/experiment with the source code/executable file of the software.
4. The user should have a good knowledge about the basic attributes of an object and fill in the details of the problem.

The main dependencies of the working and performance of the software are:
1.The internet connection should be good enough for the computers to communicate with each other and send data to the staff .
2. The Java VM and all other platforms should be functioning properly.
3. All the tools on which the software is dependent must be working properly
4. The software will also depend on the database and the interaction of Java application with the database.
The aspects to take care of :
1.Network and server problems- These problems may reduce the function of the product.
2.Communication – When a user does not know the language to communicate(i.e. English)
3.Negligence – When any user character(actors) do not care about the grievances the system may fail.

3 external interface requirements

3.1 user interface

The user interface of the software will be easy to use and interactive. Each person will have to login using his own login id and password. Only after that, he will be able to make any changes to the database or have his/her queries answered.
1. staff : They will be given the access to do the following jobs:
(a) Enter details of a consignment like type, volume, details of sender and receiver, like name, address and a citizen ID.
(b) They will be able to see the complaints present at their village .
(c) They would be able to forward grievances to the admin and update the status of the grievances.
2. admin : admin will studies the grievances and forward it to higher officer.
(a) higher officer should give the permission to proceed .
(b) then admin will update the status he will assign the problem to certain team.

3.2 hardware interface

The storage of the data on the physical drive will depend on the tools used for the development of software. The software will run properly on a computer having support for Java applications and also the database to be used. The computer should have a minimum of 2GB RAM (preferably 4GB or more) and 20GB free space (preferably 50GB or more). More memory may be required if the database is too large.

3.3 software interface

Java will be used in the development of the software. A database will also be required to store the employee information, consignment details and truck information in a logical manner. Java applications must be able to communicate with the database properly. All major internal dependencies should be taken into account. Internet connection is required for the communication of computers at different branches

3.4 communication interface

Communication plays a major role in the software performance. All information to track problem sent through networks. So the computers at different and the central machine must be able to communicate securely and quickly over the network. The software must

take care of the communication protocol to be used or the encryption to be followed to ensure secure communication among different branches.

4 system use cases

4.1 Use case name and identifier(U1)

1. U1
2. Objective –Establish the relationship between user classes and process.
3.Priority – High
4.Source – Public(Eg: Selvaraj, an accountant at EB department,Madurai)
5.Actors - PUBLIC, ADMIN, OFFICERS, and HIGHER OFFICIALS.
6. Flow of Events
6.1.Basic Flow –
6.1.1 Public registers details.
6.1.2 Public login to the system.
6.1.3 Public lodges the complaint.
6.1.4 Staff login to the system
6.1.5 Staff solves the complaint.
6.1.6 Staff updates the status.
6.2. Alternative Flow(s) – At step 6.1.3 if the public does not choose the right department an error message is displayed.
6.3.Exception Flow(s) – When the complaint is not registered properly by the public the whole process will be blocked.
7.Includes – U1,U4
8.Preconditions – Public must be registered before they lodge their complaints.
9.Post conditions – A Track-id will be received by the public.
10.Notes/Issues - None

4.2 public lodges grievances (U2)

1.U2
2.Objective – The public lodges their grievances.
3.Priority – High
4.Source – Nagarevathi(Software tester,Google)
5.Actors – Public, grievance system
6.Flow of Events
6.1.Basic Flow
6.1.1. Public login
6.1.2. Public registering complaint

6.2. Alternative Flow 1 – At step 6.1.1 if the user does not login the system cant be used.
6.3.Exception Flow 1 – When the public details are incorrect to login error will be shown.
7.Includes Exception occurs
8.Preconditions – User is logged in
9.Post conditions – Grievances are registered
10.Notes/Issues – None

4.3 Staff solves the grievances (U3)

11. U3
12.Objective – The staff takes action against the grievances.
13.Priority – High
14.Source – Chief engineer, Water Department.
15.Actors – Staff, grievance system
16.Flow of Events
16.1.Basic Flow
16.1.1. Staff login
16.1.2. Staff solves the complaint
16.2.Alternative Flow 1 – At step 17.1.1 if the staff does not login the grievance cant be solved.
16.3.Exception Flow 1 – When the staff details are incorrect to login error will be shown.
17.Includes
Exception occurs
18.Preconditions – Staff is logged in Software Requirements Specification for Online Grievance Readressal System Page 6
19.Post conditions – Grievances are solved
20.Notes/Issues – None

4.4 admin forward the grievances (U4)

1.U4
2.Objective – The admin validate their grievances.
3.Priority – medium
4.Source – Nagarevathi(Software tester,Google)
5.Actors – admin, grievance system
6.Flow of Events
6.1.Basic Flow
6.1.1. admin login

6.1.2.admin validate complaint
6.2. Alternative Flow 1 – At step 6.1.1 if the admin does not login the system cant be used.
6.3.Exception Flow 1 – When the admin details are incorrect to login error will be shown.
7.Includes Exception occurs
8.Preconditions – admin is logged in
9.Post conditions – Grievances forwarded to HO
10.Notes/Issues – None

4.5 higher officials taking action against unsolved grievances (U5)

1.U5
2.Objective – higher officials taking action against unsolved grievances .
3.Priority – medium
4.Source – Nagarevathi (Software tester,Google)
5.Actors – higher officer, grievance system
6.Flow of Events
6.1.Basic Flow
6.1.1. higher officials login
6.1.2. ho taking action against complaint
6.2. Alternative Flow 1 – At step 6.1.1 if the HO does not login the system cant be used.
6.3.Exception Flow 1 – When the public details are incorrect to login error will be shown.
7.Includes Exception occurs
8.Preconditions – HO is logged in
9.Post conditions – Grievances are solved
10.Notes/Issues – None

5 Other Nonfunctional Requirements

5.1 Performance Requirements

Performance is measured in terms of the output provided by the application. Requirement specification plays an important part in the analysis of a system. Only when the requirement specifications are properly given, it is possible to design a system, which will fit into required environment. It rests largely in the part of the users of the existing system to give the requirement specifications because they are the people who finally use the system. This is because the requirements have to be known during the initial stages so that the system can be designed according to those requirements. It is very difficult to change the system once it has been designed and on the other hand designing a system, which does not cater to the requirements of the user, is of no use. The requirement specification for any system can be broadly stated as given below:

- The system should be able to interface with the existing system
- The system should be accurate
- The system should be better than the existing system
- The existing system is completely dependent on the user to perform all the duties.

5.2 safety requirements

This describes the safety-related H/W and high level S/W architecture. It decomposes the design of the safety functions and specifies the associated safety integrity functions such as self-tests and safety support functions such as operating and communication systems and justifies the partitioning.

5.3 security requirements

All the details in this system must be secured. It must be confidential.

5.4 software quality attributes

adaptability, availability, correctness, flexibility, interpret ability, maintainability, portability, reliability, re-usability, robustness, test ability, and usability.

6 other requirements

1.Online Surveys.
2.Facility to upload photos of the complaint. for eg, garbage problem.
3.Help pages in the form of forums and FAQs.
4.Assigning performance ratings to different sections of municipal administration as per direct feedback received from users.

7 system requirements chart

ID	PRIORITY	TYPE	SOURCE	DESCRIPTION
U1	HIGH	F	PUBLIC,STAFF,ADMIN,HO	ALL ACTIVITIES OF THE SYSTEM
U2	HIGH	F	PUBLIC	REGISTER THE GRIEVANCES
U3	HIGH	F	STAFF	TAKES ACTION AGAINST THE GRIEVA
U4	MEDIUM	F	ADMIN	FORWARD THE GRIEVANCE TO STAFF
U5	MEDIUM	F	HO	CHECK FOR UNSOLVED GRIEVANCES