**Software Requirements Specification**

**For**

**Acquaintance with The Water Resources**

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1. Introduction

1.1 Purpose

The purpose of this source is to bridge the gap between the people living in that area and the resources provided by the Government nearby. Today, the main problem that the society faces is either lack of available resources or not having the awareness and proper knowledge about the available resources. It intend to provide the solution to this problem using the data available about the nearest source of water provided by the Government.

1.2 Document Conventions

None.

1.3 Intended Audience and Reading Suggestions

\*The document is intended for project managers and end users

\*Users must go through the document from top to bottom.

1.4 Product Scope

Water is the most important resource available to a human being. To have clean water and knowledge about the available resources is the right of every human being living on Earth. India faces a big challenge to provide clean and safe water supply to many areas.

The app will provide information about the level of groundwater and the annual rainfall received by the area on average in a year. With the help of machine learning model and the forecast by the weather departments, it can also predict how much of rainfall will subsequent years receive. This will also help in preventing overuse of groundwater and take measures to face harsh climatic conditions by appropriate use of rainwater.

1.5 References

\*Indian meteorological department

\*wris

\*youtube

2. Overall Description

2.1 Product Perspective

2.1.1.user interface:

\*login screen:-this is first interacting screen to

the user,which authenticate

Different user and lead to them a different

Screen according to their role.

\*data entry screen:-use to enter different categorized

Data about water resource of different cities.

\*data display screen:-display different stories for different

trades.

\*Chatbot screen:-An AI-based CHATBOT will be present as an assistant, which can solve basic queries or provide the information about the concerned authority.

2.1.2.hardware interface:

\*pentium or above CPU.

\*512 mb ram or above.

\*android version 4.4 (lollipop) or above.

2.1.3.software interface:

\*windows 7 or successor version.

\*adobe flash.

2.1.4.Communication interface:

\*mail

\*post.

2.1.5.memory constraints:

\*512mb ram

\*100 Gb hard disk.

\*4Gb internal storage for android.

2.1.6.operations:

\* AI will be able to update the information and also able to reset

system.

\*DBA will be able to update the information and also able to reset

system.

\*DBA also has authorisation for backup and recovery.

2.1.7.site adaptation requirement:

\*the client system should satisfy the above mentioned

Hardware and software interface.

2.2 Product Functions

\*login facility for authorized access to portal.

\*user(with role administrator)will able to authenticate new

User account.

\*user(with role administrator)will able to reset the portal.

\*user(with role DEO) will able to add modify delete information

On the portal.

\*AI will be able to update the information and also able to reset

system.

\*user(with role DEO) will be able to read all the posts from all

The users.

\*option for online payment of water bill will be available.

2.3 User Classes and Characteristics

\*educational level-little bit comfortable in english.

\*A limited knowledge of email

2.4 Operating Environment

none.

2.5 Design and Implementation Constraints

\* Network of Underground supplied water

\* Data of previous year of rainfall

\*Government data for the groundwater level in an area

\* Data regarding the available water resources in various areas

\* Maps provided for a region

\* Details about the most common water resource in use

2.6 User Documentation

none.

2.7 Assumptions and Dependencies

\*new places being added to the maps.

\*recent build water sources.

\*Non availability of Government data for the groundwater level in an area.

3. External Interface Requirements

3.1 User Interfaces

\*login screen:-this is first interacting screen to

the user,which authenticate

Different user and lead to them a different

Screen according to their role.

\*data entry screen:-use to enter different categorized

Data about water resource of different cities.

\*data display screen:-display different stories for different

trades.

\*Chatbot screen:-An AI-based CHATBOT will be present as an assistant, which can solve basic queries or provide the information about the concerned authority.

3.2 Hardware Interface

\*pentium or above CPU.

\*512 mb ram or above.

\*android version 4.4 (lollipop) or above.

3.3 Software Interface

\*windows 7 or successor version.

\*adobe flash.

3.4 Communications Interfaces

\*Mail

\*post

4. System Features

4.1 AI that will provide information about the level of groundwater and the annual rainfall received by the area on average in a year.

4.2 CHATBOT which will be present as an assistant, which can solve basic queries or provide the information about the concerned authority.

4.3 ONLINE BILLING AND PAYMENT enable user pay bill online without much effort.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

\*provide networking such that loading of page took in2

Seconds if sufficient net speed is provided.

5.2 Safety Requirements

A proper backup will be made everyday using latest raid technologies.

5.3 Security Requirements

The data provided by the app is for the welfare of country and is non commercial duplication of any information in any form for commercial purpose is strictly prohibited.

5.4 Software Quality Attributes

\*The data provided with the help of machine learning model and the forecast by the weather departments, we can predict how much of rainfall will subsequent years receive so it cannot show correct information of recently flooded area or eroded area due to some natural or man made disaster.

\*A chatbot will help lower the load on the authority offices as they will provide basic details and solution to some of the basic problems in the App itself.

5.5 Business Rules

<List any operating principles about the product, such as which individuals or roles can perform which functions under specific circumstances. These are not functional requirements in themselves, but they may imply certain functional requirements to enforce the rules.>