A Project Report

on

RECKONING ATTAINABLE INTENT FOR DIKE WITH UNCHARTED AGITATION

Submitted in partial fulfillment of the requirement for the award of the degree of

Bachelor of Technology in Computer Science and Engineering

GALGOTIAS UNIVERSITY

(Established under Galgotias University Uttar Pradesh Act No. 14 of 2011)

Under The Supervision of
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SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
GALGOTIAS UNIVERSITY, GREATER NOIDA

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SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
GALGOTIAS UNIVERSITY, GREATER NOIDA

CANDIDATE'S DECLARATION

I/We hereby certify that the work which is being presented in the project, entitled**"RECKONING ATTAINABLE INTENT FOR DIKE WITH UNCHARTED AGITATION"** in partial fulfillment of the requirements for the award of the **BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING** submitted in the **School of Computing Science and Engineering** of Galgotias University, Greater Noida, is an original work carried out during the period of **JULY-2021 to DECEMBER-2021**, under the supervision of **Dr.M.Thirunavukkarasan Assistant Professor**, **Department of Computer Science and Engineering** of School of Computing Science and Engineering , Galgotias University, Greater Noida

The matter presented in the project has not been submitted by me/us for the award of any other degree of this or any other places.

JagritiAgrahari-18SCSE1010147
Ayush keserwani -18SCSE1050037

This is to certify that the above statement made by the candidates is correct to the best of my knowledge.

Supervisor
(Dr.M.Thirunavukkarasan
Assistant Professor)

CERTIFICATE

The Final Project Viva-Voce examination of **Jagriti Agrahri-18SCSE1010147 & Ayush Kesarwani-18SCSE1050037** has been held on _____ and his/her work is recommended for the award of **BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING**.

Signature of Examiner(s) **Signature of Supervisor(s)**

Signature of Project Coordinator **Signature of Dean**

Date: December, 2021
Place: Greater Noida

Acknowledgement

The satisfaction that accompanies that the successful completion of any task would be incomplete without the mention of people whose ceaseless cooperation made it possible, whose constant guidance and encouragement crown all effort with success.

We are grateful to our project guide **Dr.M.Thirunavukkarasan** sir for the guidance ,inspiration and constructive suggestions that helpful us in the preparation of this project.

We also thank our colleagues who have helped in successful completion of the project

Jagriti Agrahari

Ayush kesarwani

Abstract

Nowadays Dam authority is facing problems related to the dam and weather parameter monitoring. Up to now most of the smaller dams are manually monitored and sending data with normal ways, this manual observation and transmission results in a time lag, between the data observed in dam site and decision taking level. This sometimes causes loss of beneficial real time data. An information technique for registering reachable sets where dynamic learning is utilized to lessen the computational weight. Set-based techniques used to assess reachable sets regularly don't scale well with the state-space measurement, or depend vigorously on the presence of a model. Assuming such a model isn't accessible, it is easy to create state direction information by mathematically reproducing discovery prophets of frameworks (whose elements are obscure) from tested introductory conditions. Utilizing these information tests, the assessment of reachable sets can be acted like a characterization issue, wherein Active Learning can astutely choose tests that are generally instructive and least comparative to recently marked examples. By using this algorithm we proposed predicted results to dam water lever monitoring and outlet management to the connecting areas of the dam. This algorithm considers the capacity of the connecting dams and suggests the water outlet during the hard situation and nearby people can be informed in time thus saving lots of lives and avoiding the unpleasant scenarios.

Contents

CHAPTER-1 Introduction

Nowadays dam authority are facing problems regarding the dam parameters monitoring as most of the small dams are still using manual data observation and older techniques of transmission system. Dam researchers want to monitor the frequent changes in parameters of dam and the data for their research purpose. Since there is no such centralized database for the dam parameters, so they face problem regarding the availability of such sorted data. Common people like farmers are also unaware about these general parameters like water level, gate opening, amount of rainfall, temperature, humidity etc., hence they face many problems in farming, which heavily affects the yields of the farms. Due to heavy rainfall, the water level of dam increases suddenly due to which the Dam authority have to open the gates to prevent the dam from the risk of uncertainty issues. Also due to this the people living in nearby villages have to face a serious problem like flood in their farms. When back water of dam increases above its threshold level (danger level) it may cause damage to farms, villages, industries located nearby and lastly the lives of the people living nearby. Manual data observation and transmission results in considerable time lag between the data observed, its transmission and for decision making. This may sometimes give little time for the decision taking. Also this causes loss of real time data and sometimes becomes the reason for upcoming disaster. This system will help to reduce these problems which faced by Dam authority, researchers as well as common people like farmers. The conception about this system is to develop a web portal which will monitor and provide authentic timeparameters related to Dam.

CHAPTER-2 Project Design

Dam upload

In this module, the Dam related data such as dam construction details and other properties of a dam will be uploaded. After that the training dataset will be collected, contains the overall inflow and outflow which is occurred in the past years. Then it will be preprocessed according to the scenario and it will move on to the next phase.

Model Training

In this module the model will be trained according to the given input datasets and other properties of the dam. Finally the model which is in the state to predict which the exact outflow of the given dam is. In some critical circumstances the model will predict and suggest water level to drain.

Main Dam Authority

The main Dam authority is the dam which having highest capacity and one of the main dams also. This dam will be monitored frequently regarding the water levels. The sub dam's details will also be gathered by the main dam authority. Therefore the criteria required for the outflow will be given by the admin.

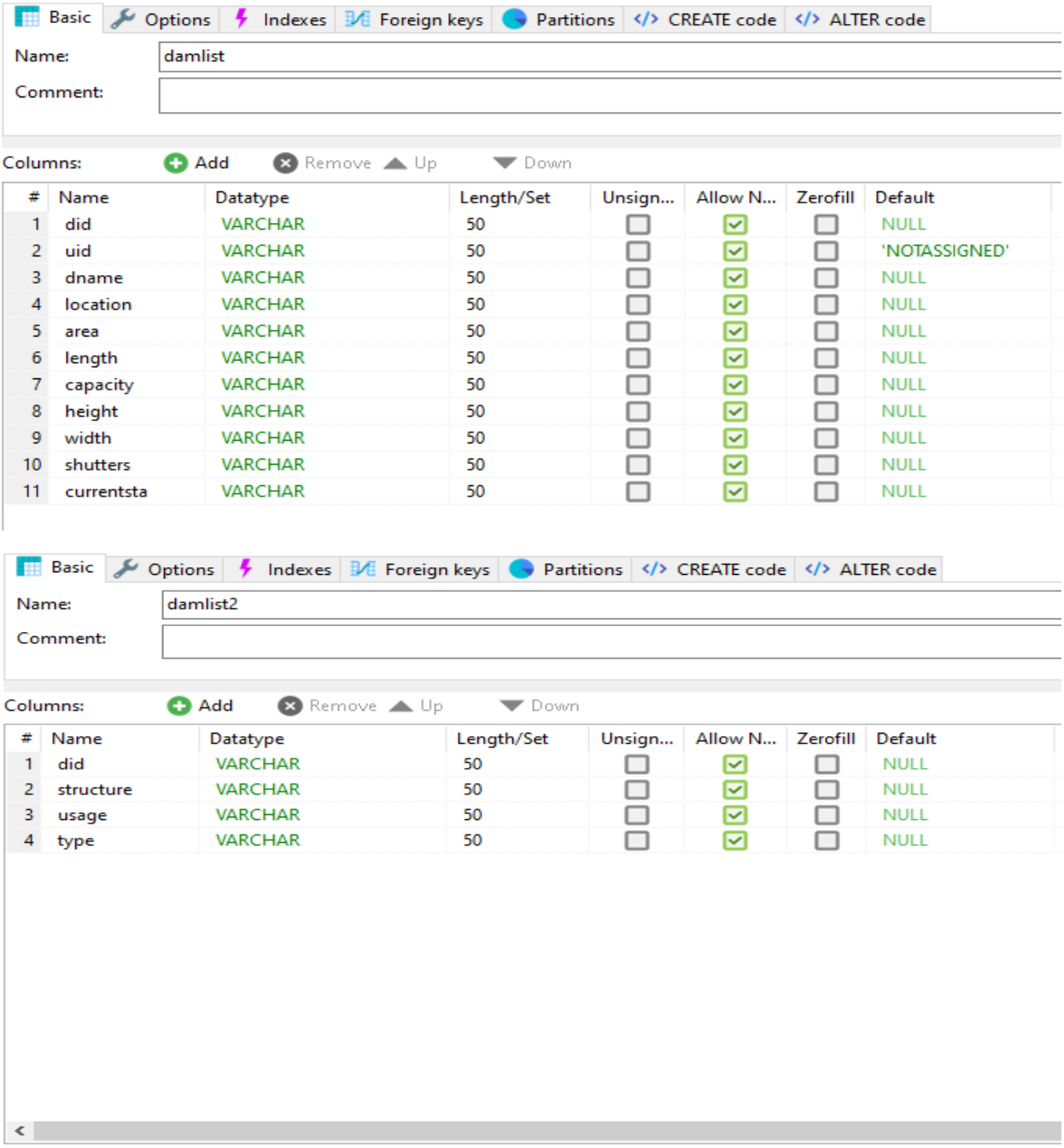
Sub Dam Authority

In this module the sub dam authority is the smaller dams which depend on the main dam. This will update the current dam status to the main authority, and after receiving the certain amount of water this authority will interact with main to ensure the amount of water received form the source, so that next time the consumption would be more efficient.

Agri Land Authority

Finally the land authority will arise request to the admin for requesting the water which required for the upcoming seasons for agriculture. So that by the use of this module the outflow planning will be more effective.

Database Screen Short



Basic | Options | Indexes | Foreign keys | Partitions | CREATE code | ALTER code

Name: damlist

Comment:

Columns: Add Remove Up Down

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default
1	did	VARCHAR	50	☐	☑	☐	NULL
2	uid	VARCHAR	50	☐	☑	☐	'NOTASSIGNED'
3	dname	VARCHAR	50	☐	☑	☐	NULL
4	location	VARCHAR	50	☐	☑	☐	NULL
5	area	VARCHAR	50	☐	☑	☐	NULL
6	length	VARCHAR	50	☐	☑	☐	NULL
7	capacity	VARCHAR	50	☐	☑	☐	NULL
8	height	VARCHAR	50	☐	☑	☐	NULL
9	width	VARCHAR	50	☐	☑	☐	NULL
10	shutters	VARCHAR	50	☐	☑	☐	NULL
11	currentsta	VARCHAR	50	☐	☑	☐	NULL

Basic | Options | Indexes | Foreign keys | Partitions | CREATE code | ALTER code

Name: damlist2

Comment:

Columns: Add Remove Up Down

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3	usage	VARCHAR	50	☐	☑	☐	NULL
4	type	VARCHAR	50	☐	☑	☐	NULL

Basic | Options | Indexes | Foreign keys | Partitions | CREATE code | ALTER code

Name: damstatus

Comment:

Columns: Add | Remove | Up | Down

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2	date1	VARCHAR	50	☐	☑	☐	NULL
3	feet	VARCHAR	50	☐	☑	☐	NULL
4	inflow	VARCHAR	50	☐	☑	☐	NULL
5	outflow	VARCHAR	50	☐	☑	☐	NULL
6	tmc	VARCHAR	50	☐	☑	☐	NULL

Basic | Options | Indexes | Foreign keys | Partitions | CREATE code | ALTER code

Name: damstatus2

Comment:

Columns: Add | Remove | Up | Down

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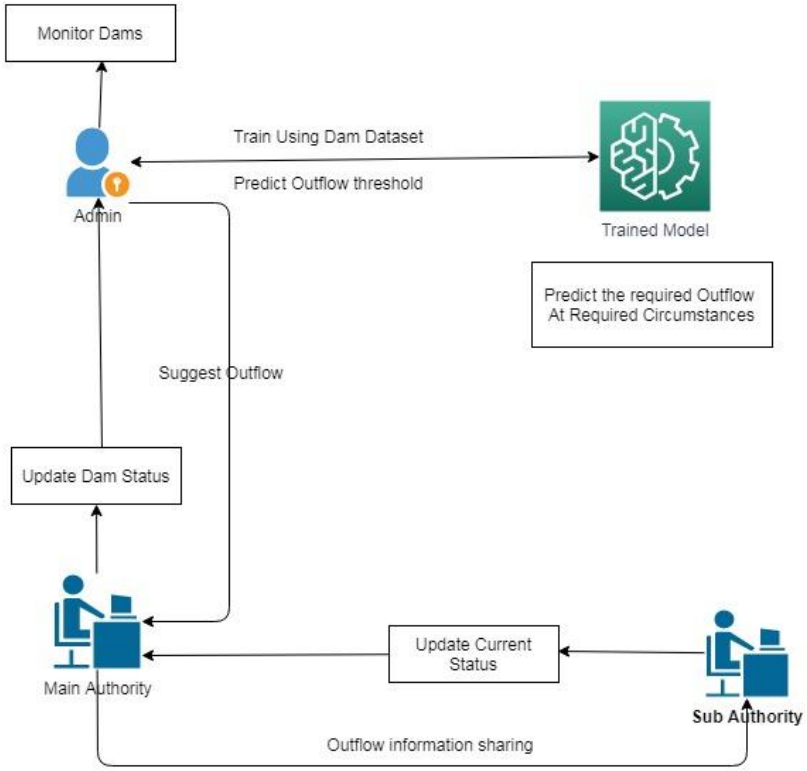
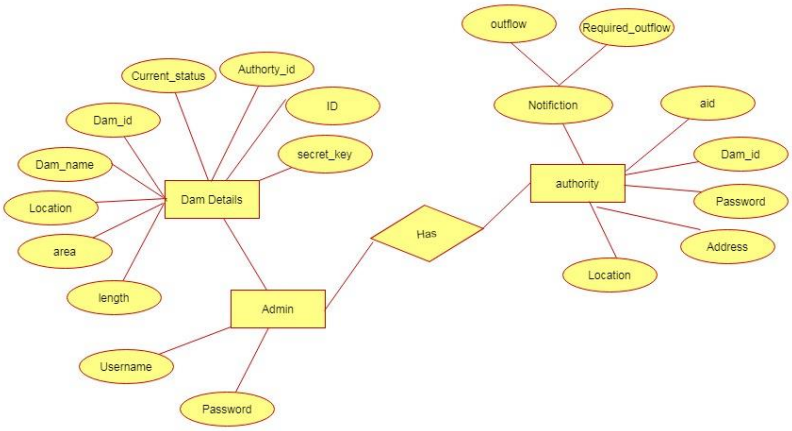
2	date1	VARCHAR	50	☐	☑	☐	NULL
3	feet	VARCHAR	50	☐	☑	☐	NULL
4	inflow	VARCHAR	50	☐	☑	☐	NULL
5	outflow	VARCHAR	50	☐	☑	☐	NULL
6	tmc	VARCHAR	50	☐	☑	☐	NULL

System Architected



E – R DIAGRAMS

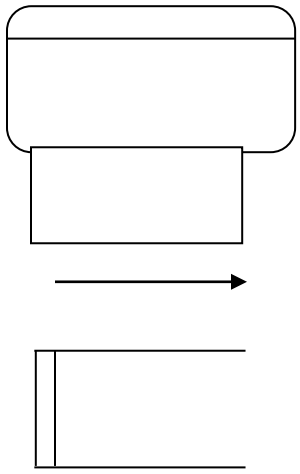


DFD SYMBOLS

In the DFD, there are four symbols

1. A square defines a source (originating) or destination of system data
2. An arrow identifies data flow. It is the pipeline through which the information flows

3. A circle or a bubble represents a process that transforms the incoming data flow into outgoing data flows.
4. An open rectangle is a data store, data at rest or a temporary repository of data



A process that transforms the data flow

Source or Destination of data

Data flow

Data Store

CONSTRUCTING A DFD:

Several rules of thumb are used in drawing DFD'S:

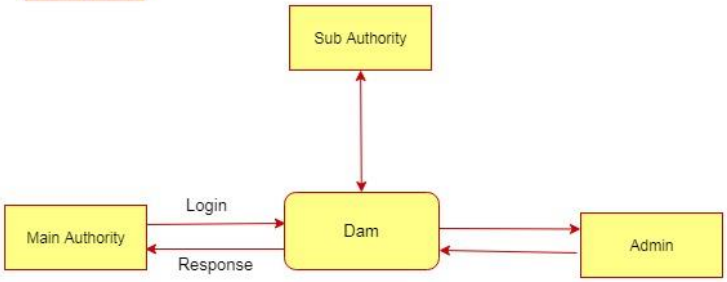
1. Process should be named and numbered for an easy reference. Each name should be representative of the process.
2. The direction of flow is from top to bottom and from left to right. Data traditionally flow from source to the destination although they may flow back to the source. One way to indicate this is to draw the long flow line back to a source. An alternative way is to repeat the source symbol as a destination. Since it is used more than once in the DFD it is marked with a short diagonal.
3. When a process is exploded into lower level details, they are numbered.
4. The names of data stores and destinations are written in capital letters. Process and dataflow names have the first letter of each work capitalized

A DFD typically shows the minimum contents of data store. Each data store should contain all the data elements that flow in and out.

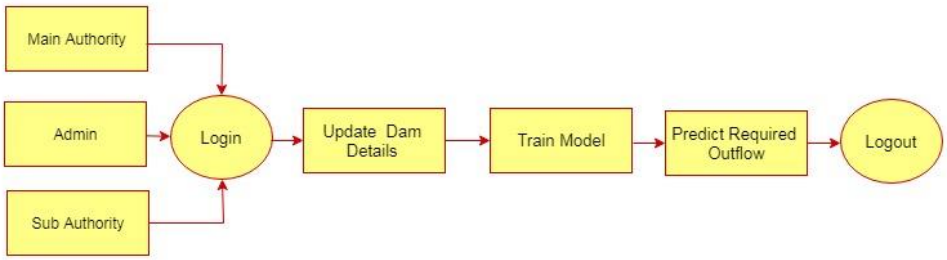
Questionnaires should contain all the data elements that flow in and out. Missing interfaces redundancies and like is then accounted for often through interviews.

DATA FLOW DIAGRAM

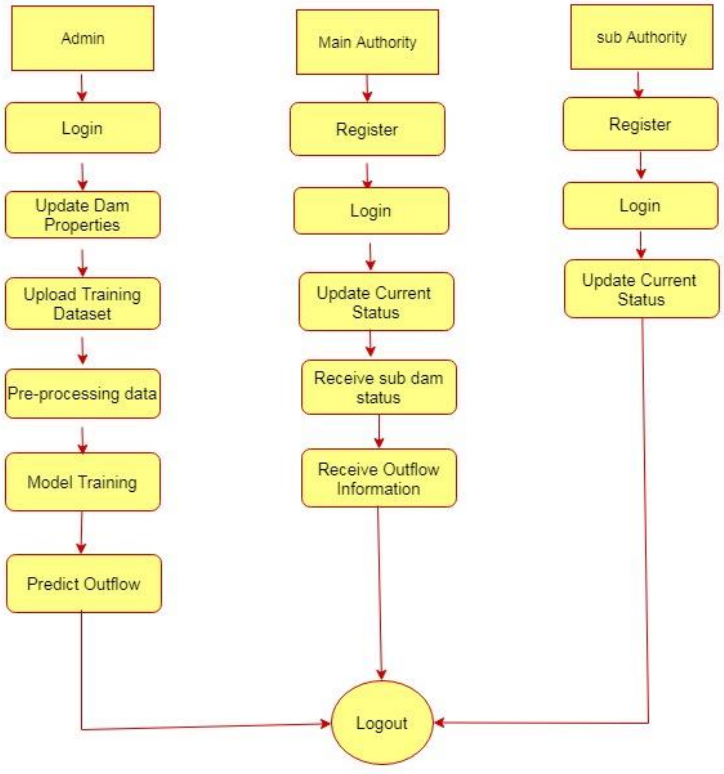
DFD LEVEL 0



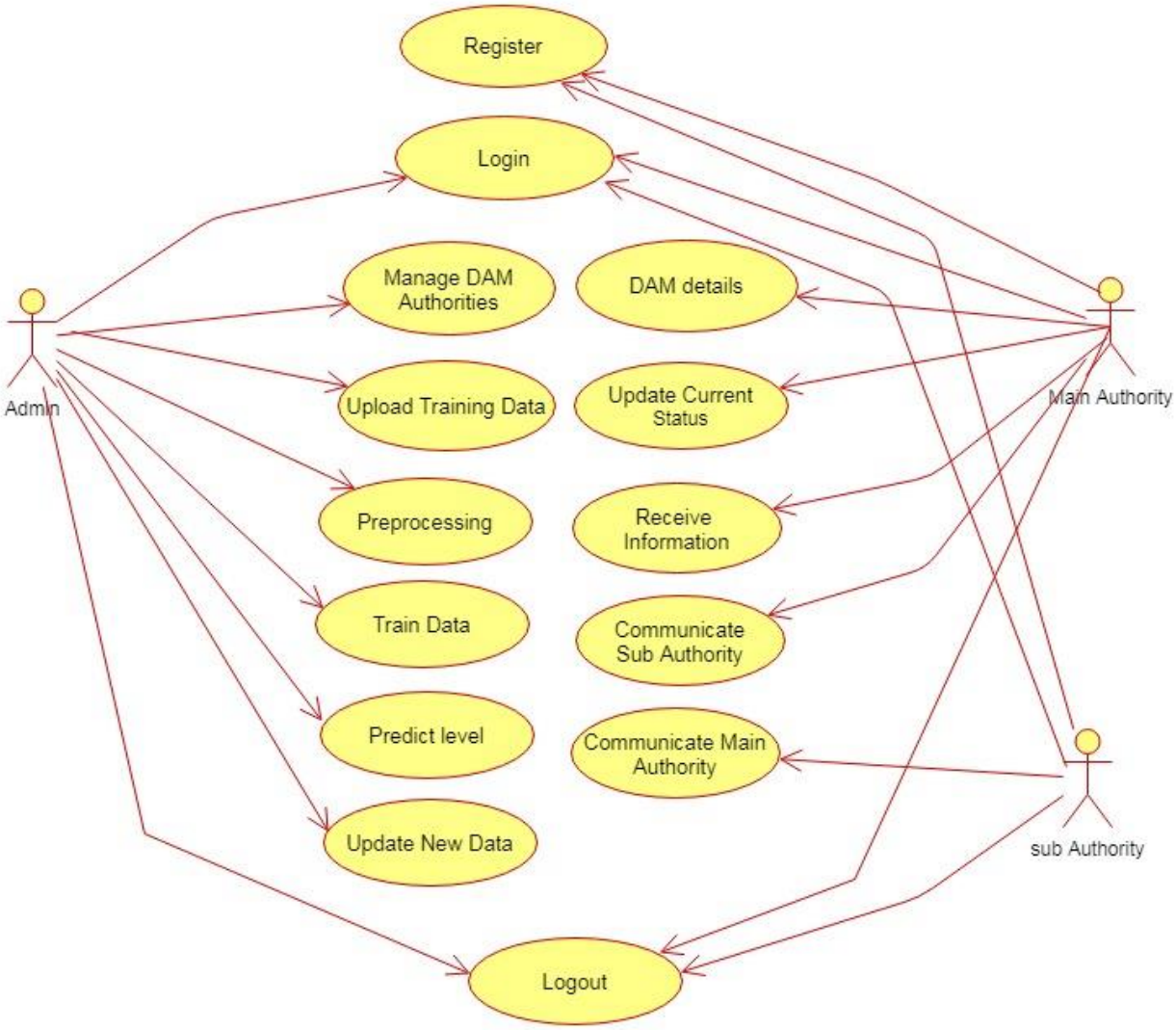
DFD LEVEL 1



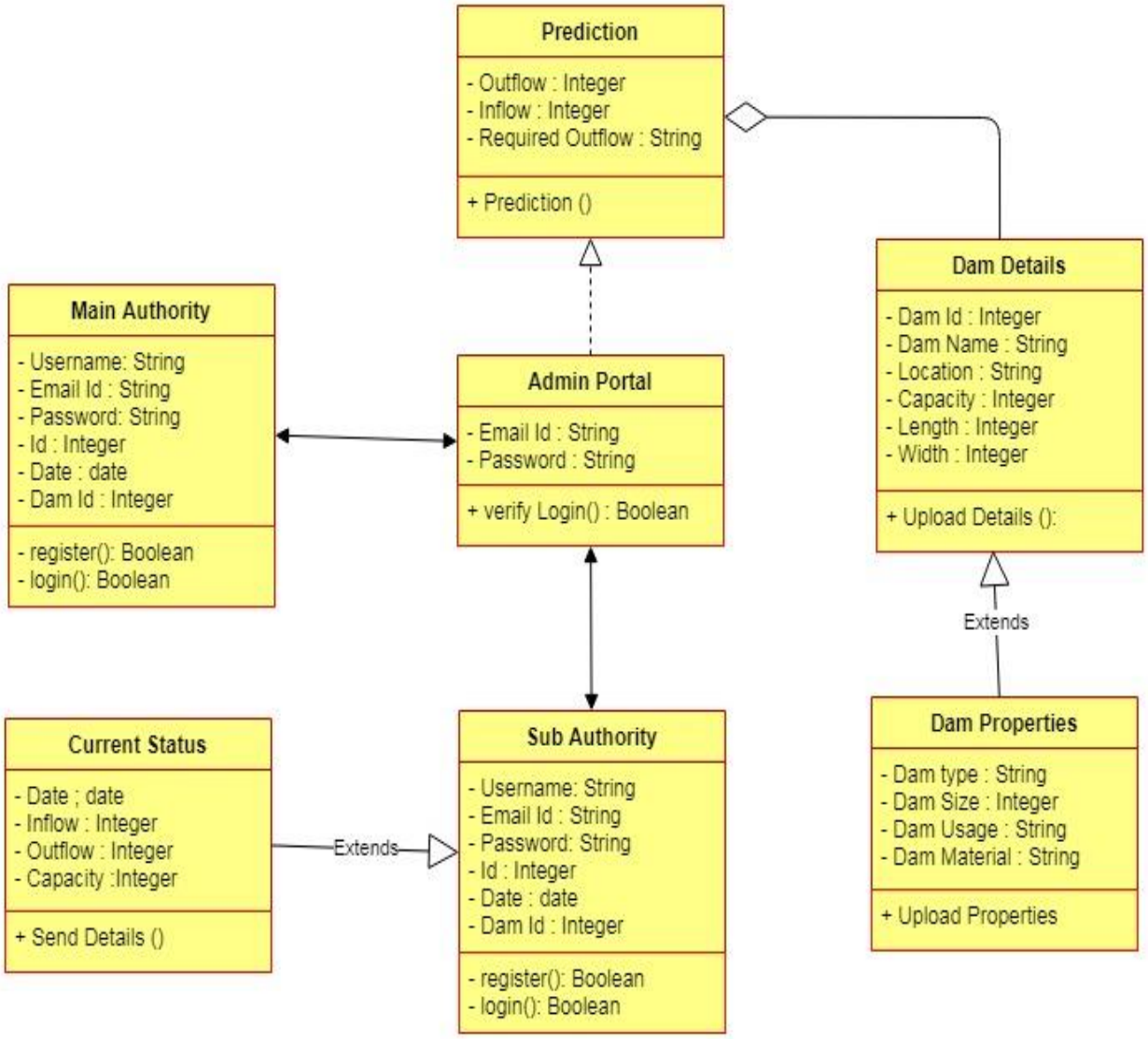
DFD LEVEL 2



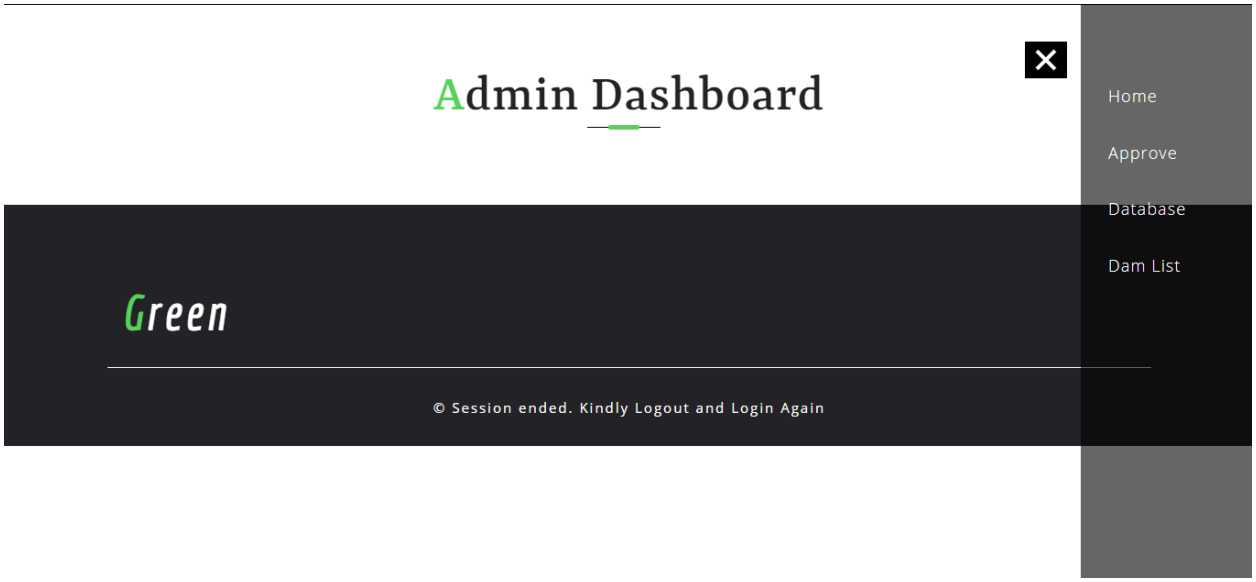
6.8 USE CASE DIAGRAM

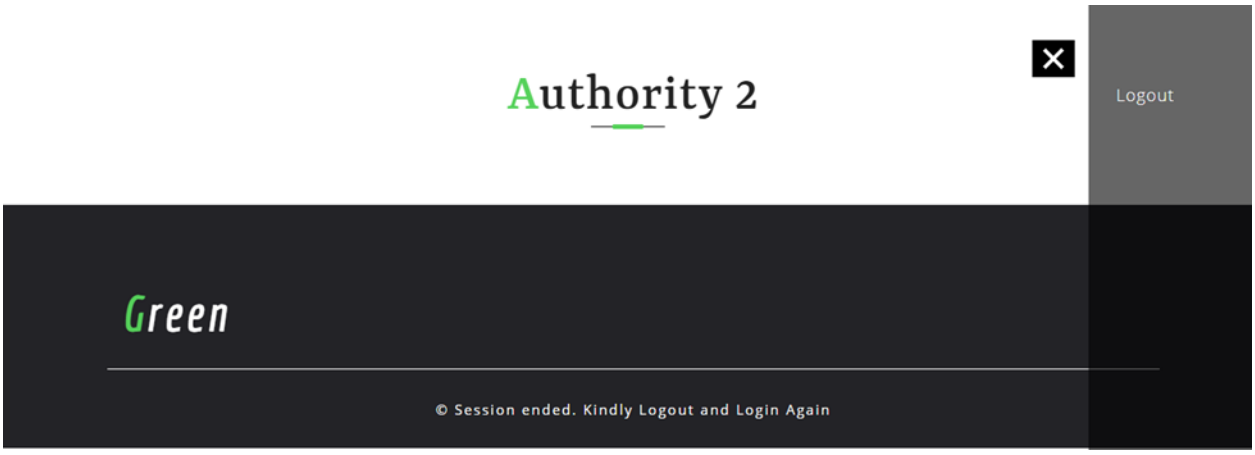


CLASS DIAGRAM

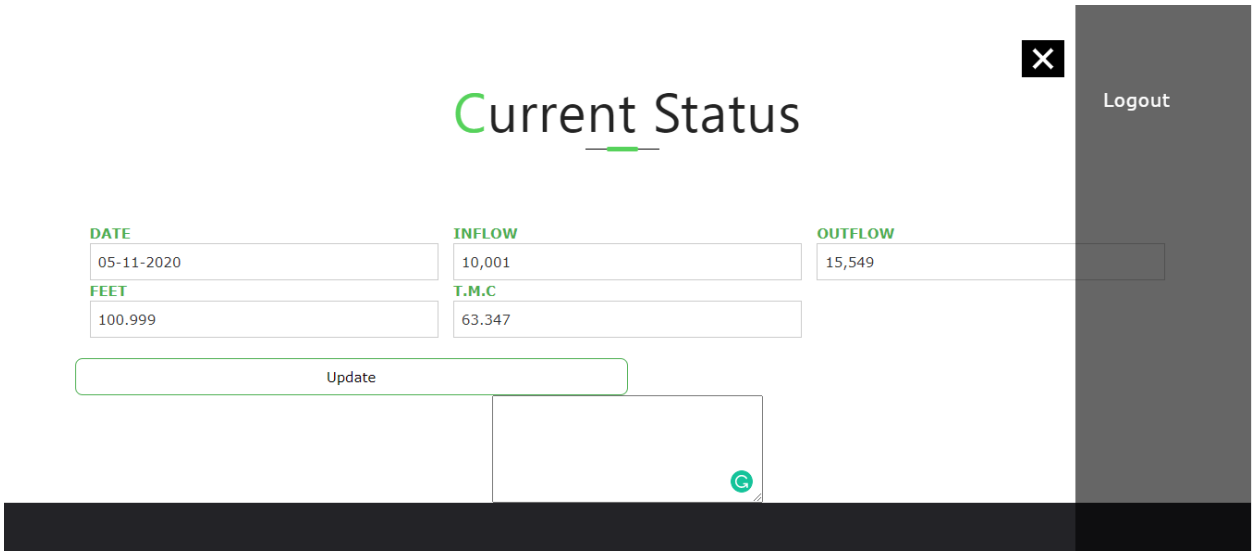


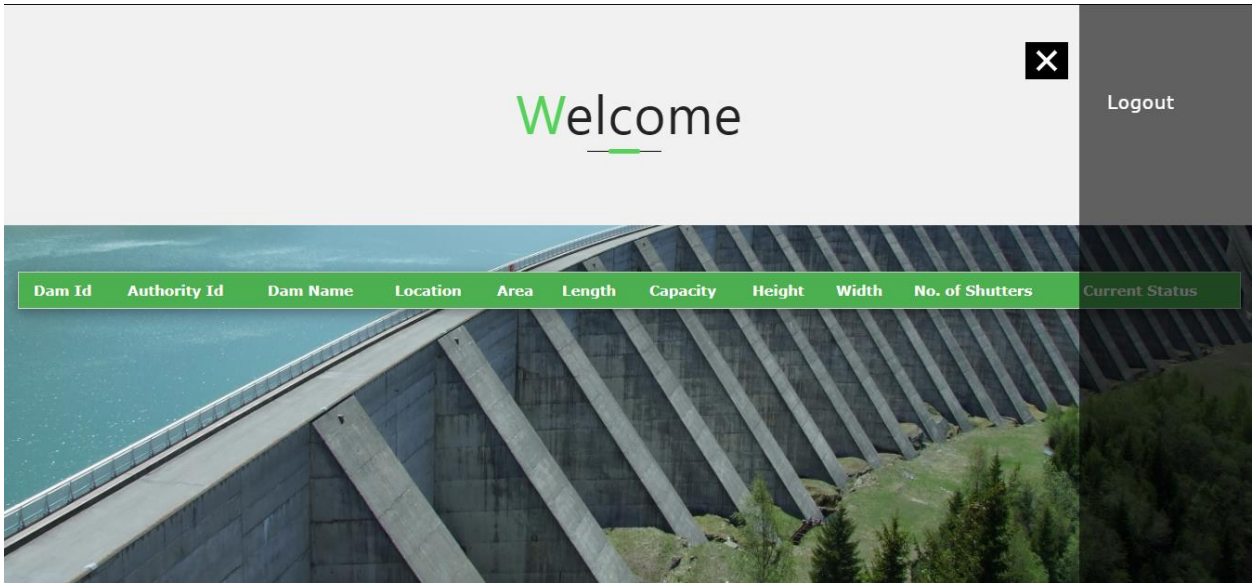
Chapter 3 Working of Project





Admin dashboard here we can show the working of an our project step by step;


Logout
Current Status
DATE
05-11-2020
INFLOW
10,001
OUTFLOW
15,549
FEET
100.999
T.M.C
63.347
Update

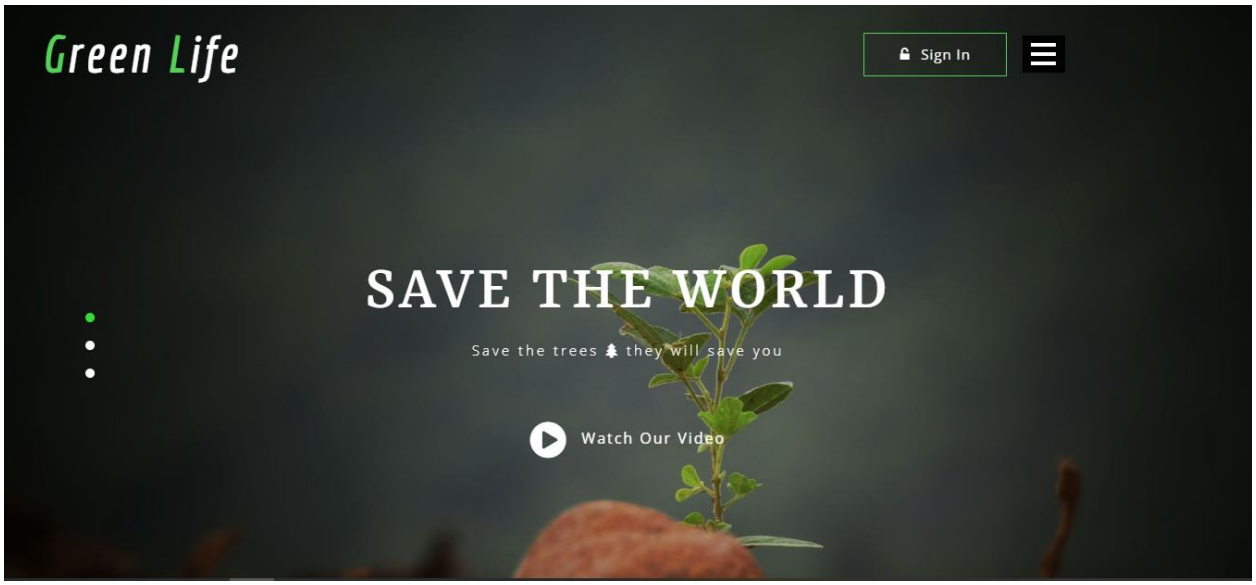

Logout
Welcome
Dam Id
Authority Id
Dam Name
Location
Area
Length
Capacity
Height
Width
No. of Shutters
Current Status

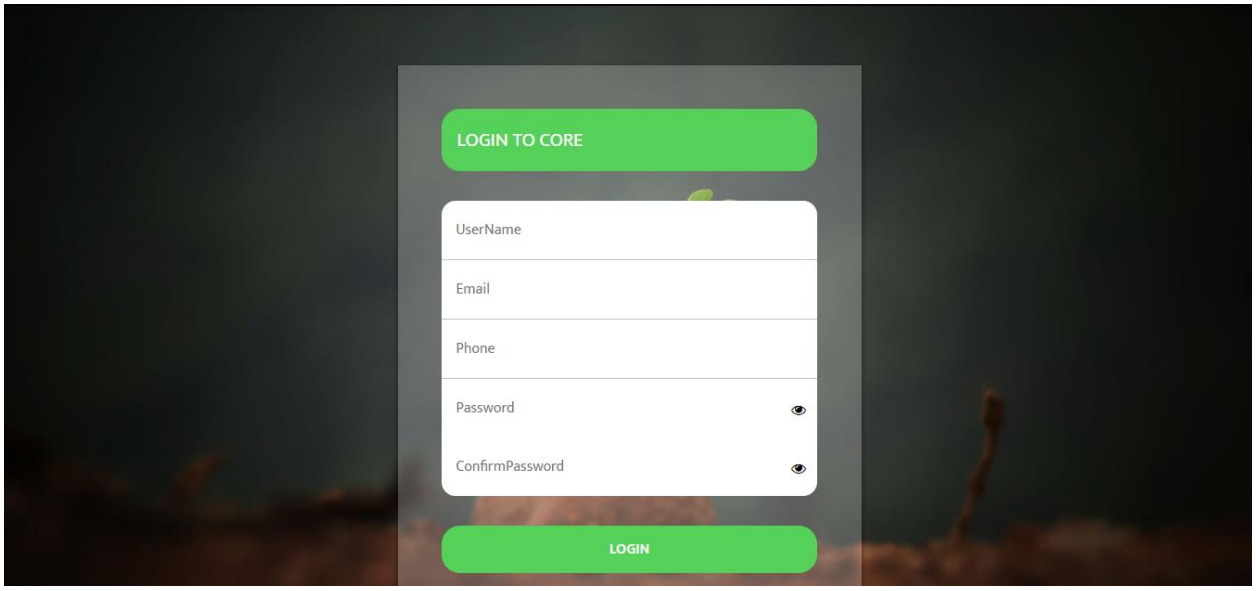
Title

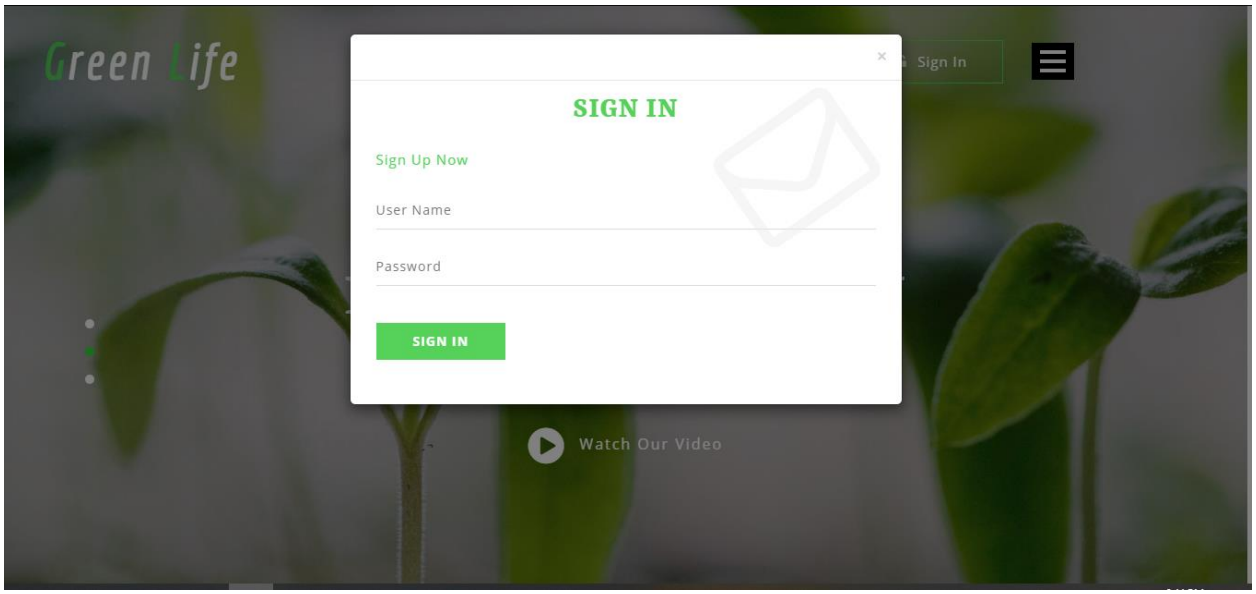
Logout

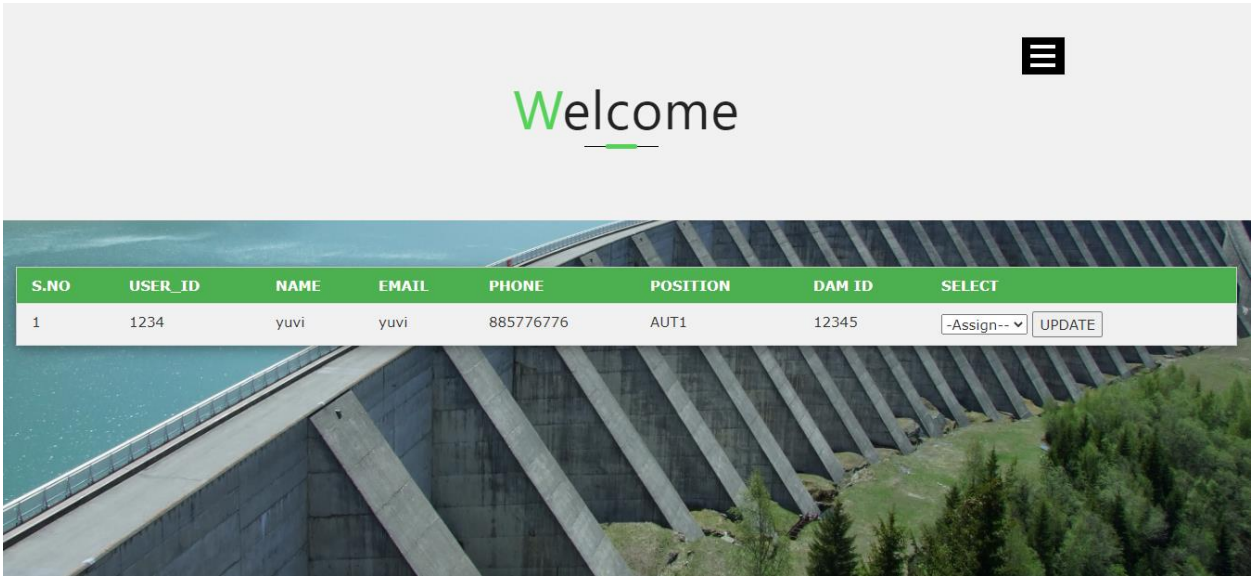
DAM ID	null
DAM NAME	null
STRUCTURE	Arch Dam
USAGE	Saddle dam
MATERIAL	Steel dam
	Next

Title


Green Life
Sign In
SAVE THE WORLD
Save the trees they will save you
Watch Our Video


LOGIN TO CORE
UserName
Email
Phone
Password
ConfirmPassword
LOGIN


Green Life
Sign In
SIGN IN
Sign Up Now
User Name
Password
SIGN IN
Watch Our Video


Welcome
S.NO
USER_ID
NAME
EMAIL
PHONE
POSITION
DAM ID
SELECT
1
1234
yuvi
yuvi
885776776
AUT1
12345
-Assign--
UPDATE

Chapter 4 Conclusion and Future Scope

we built up an AL system for assessing control-applicable sets, for example, reachable sets in a information driven way for frameworks we depend on testing and reenactments to coordinate the set assessment issue. By this project each and every variation of water level is informed to web server through internet & nearby people can be informed in time. Thus, saving lots of lives avoiding unpleasant scenarios .It is possible to have real prototyping of this module in river by using float sensors which will monitor & control the water level & take necessary decisions according from any place. We represent the example choice worldview as a sub modular expansion issue and influence a voracious calculation to figure arrangements with ensures. We show that for enormous unlabeled arrangements of information, one can surmised the arrangement of the AL issue utilizing randomization.

The capability of the methodology in assessing little volumes inside allowable state spaces in information driven way and the basic preferred position of without model set assessment is shown exactly. We additionally represent how one could utilize this strategy to choose solvers for no convex improvement issues by dividing the achievable area of the solvers. This project is useful for large dam systems to control the overflow of water and quick decision making to open water level. We can control the dam gates from any place of the world.

Chapter 5 Reference

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