Project Report Format

REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

1. INTRODUCTION :

1.1 Project Overview :

With growing world population and industry advancement, environmental pollution became big concern. Systems for water quality monitoring are required for activity analysis and their impact on nature of the power plants, mining sector, oil industry, etc. Basically, determination of water quality relies on estimation of values of some important and indicative parameters. For example, the water quality depends of the water temperature, activity level, water flow and presence of volatile organic compounds. Although there are well known and widely used methods for measurement of these parameters with appropriate Sensors, design of electronic systems for environmental monitoring is not often straightforward. The engineering challenges are various:(a) sensor nodes are usually deployed in remote places,(b) long-term deployments require sensor nodes to be robust and systems to be easily reconfigurable,(c) sensor nodes have to be able to operate autonomously in the required environment, etc. Moreover, such applications require highly reliable and accurate sensors with the reduced level of maintenance, long lifetime, fast response times, high sensitivity and high selectivity. With the introduction of IoT in the modern world, many problems have been solved. With the use of IoT in monitoring water quality various issues such as data collection,communication,data analysis and early warnings are worked on. But in order to get this into picture, technologies and protocols are combined to get the desired output.The IoT can be used in practically all scenarios for public services by governments. Sensor-enabled devices can help monitor the environmental impact of cities, collect details about sewers, water quality, and garbage. Such devices can also help monitor woods, rivers, lakes, and oceans. An urban IoT can provide means to monitor the quality of the water in crowded areas, parks, or fitness trails. The realization of such a service requires that water quality and pollution sensors be deployed across the city and that the sensor data be made publicly available to citizens.

1.2 Purpose:

The objective of this system is to provide a technology-oriented, low-cost, IoT based water quality management system for people on rural and urban sides.The main objective of this system is to help people to check whether their drinking water is good to drink or not.This system is able to monitor and control water through IOT simultaneously.The flow speed of water through the pipe also can be measured.

2. LITERATURE SURVEY:

2.1 Existing problem:

Monitoring the qualitative status of freshwaters is an important goal of the international community, as stated in the Sustainable Development Goal (SDGs) indicator 6.3.2 on good ambient water quality. Monitoring data are, however, lacking in many countries, allegedly because of capacity challenges of less-developed countries. So far, however, the relationship between human development and capacity challenges for water quality monitoring have not been analysed systematically. This hinders the implementation of fine-tuned capacity development programmes for water quality monitoring. Against this background, this study takes a global perspective in analysing the link between human development and the capacity challenges countries face in their national water quality monitoring programmes. The analysis is based on the latest data on the human development index and an international online survey amongst experts from science and practice. This negative relationship increases along the course of the monitoring process, from defining the enabling environment, choosing parameters for the collection of field data, to the analytics and analysis of five commonly used parameters (DO, EC, pH, TP and TN). Our assessment can be used to help practitioners improve technical capacity development activities and to identify and target investment in capacity development for monitoring.

2.2 References:

- Guidelines for Water Quality Monitoring Central, Central Pollution Control Board, 2007-2008.
- WQA Glossary of Terms, by the Water Quality Association, Illinois 60532 USA, 3rd Edition, 1997.
- ISO 7027, Water Quality, International Standard, 1990.

2.3 Problem Statement Definition:

Water is one of the major compounds that profoundly influence ecosystem. But, nowadays it is been exploited heavily due to rapid industrialization, human waste and random use of pesticides and chemical fertilizers in agriculture, which leads to waste contamination. Thus, a water monitoring system is necessary to observe the water quality in a large area such as lake, river, and aquaculture. As per the current world situation, Internet of Things (IoT) and remote sensing techniques are used in heterogeneous areas of research for supervising, congregate and analyzing data from the remote locations.In this paper, the suggested system is a minimal price real time water quality monitoring system in IoT environment. This system comprises of numerous sensors for assessing the physical and chemical parameter. The factors of water that can be assessed using these sensors are pH, turbidity, conductivity, dissolved oxygen. Using this system, the real time quality of water bodies can be determined and the data uploaded over the Internet are analyzed.

India is facing a major issue of natural resource exiguity, especially in case of water due to population growth and economic development. Most of the water bodies are contaminated due to the superfluous pollutants, which are mostly human-made. Thus certify the cleanliness of water is a major challenge. Rapid industrialization and greater emphasis on agriculture growth with latest technology, usage of more fertilizers and pesticides caused large impurity in aquatic surroundings directing to debasement of water quality and depletion of aquatic life. Water bodies are contaminated due to point and non-point sources of pollution, which include sewage discharge, discharge from industries, run-off from agricultural fields, urban run-off and even due to floods, droughts and lack of education and awareness amid users.

The involvement of users in looking at the aspects like hygiene, environment sanitation, storage and disposal are exceptive elements to uphold the quality of water bodies. The tonicity of lakes, rivers and other water bodies and their biological diversification are

directly linked with the health of nearly every element of the ecosystem. Due to the use of befouled water by ecosystem components, the waterborne diseases are spreading over surroundings causing death and slowing down socio-economic progress. About 5 million people have died because of waterborne diseases all over the world (Water Resource Information System of India, 2017). Fertilizers and pesticides used for agriculture purpose can be washed by rain through soil, which ends up in water bodies. Industrial effluents are also washed into water bodies. These pollutants go into the food chain and gather till they reach noxious levels, ultimately killing birds, fish quality whereas for agriculture and industries the quality can be flexible. Industries use water from rivers to power machinery and for Increment in water temperature diminishes the broke down oxygen level in water which influences the biotic life. The large portion of the above variables makes water quality. checking more paramount in our biological system Water quality observing is the gathering of data from the suggested framework dispatched at the set areas at a standard interim of time, with a precise goal to give the constant information which will be utilized to characterize the ebb and flow conditions. The primary point of constant water quality observing framework incorporates the valuation of water quality parameters, for example, physical, substance properties, with a definite goal to recognize the varieties in water parameters and to give an early cautioning of the dangers.The framework additionally gives a constant examination of the gathered information recommends reasonable medicinal measures to slacken the water pollution. The aim of this paper is to deliver survey of functions held in smart water quality monitoring system with respect to application, communication technology used, sensors used etc. and to portrayal minimal price periodic smart water quality monitoring system using Arduino microcontroller with Wi-Fi module to examine parameters like pH, turbidity, temperature, water level, conductivity. The system also takes account facility to inform the user and the concerned authorities on variation of parameters in water bodies.

3. IDEATION & PROPOSED SOLUTION:

3.1 Empathy Map:

EMPATHY MAP

Says

- Automacially we will control and monitor the river water and
- Details of the water quality to be stored in the database
- Reduce the river water pollution
- Prevent river water to get polluted
- continuous tracking of water
- It is our responsibility to take care of our society
- Need modern technology to control and monitor the river

Thinks

- become one of the cleanest rivers in the world
- Use organic gardening techniques and avoid using pesticides and other herbicides
- Around 70% of industrial waste is dumped to water so Avoid large amounts of fertilizers dissolving in river water
- At least 2 billion people drink water from sources contaminated by feces,
- Create a clean river water everywhere

Does

- Detect the water quaility periodically
- Take a iummediate action if a river is polluted
- Check the acidity level of water
- Most rivers, lakes and surface water in India are polluted due to industries, untreated sewage and solid wastes.
- Reduce plastic usage

Feels

- Sewage or wastewater: The waste from households, factories, or agricultural land gets discharged into rivers
- Avoid releasing harmful chemicals and oils into storm drains or rivers.
- Need public support and financial support from Government
- Avoid releasing construction waste into the river
- Don't throw any solid waste into the water streams as it clogs the flow of water thereby leading to pollution

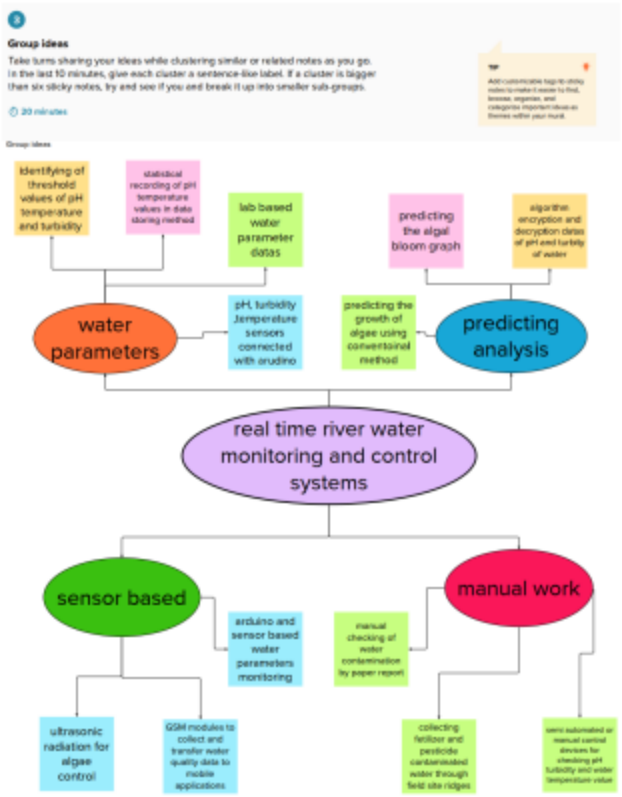
3.2 Ideation & Brainstorming:

Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.


2
Brainstorm
Write down any ideas that come to mind that address your problem statement.
10 minutes
Kiran S
Keep the data design
Use minimal number of parameters with cheap sensors for predicting water quality
Timeline of measurement must be recorded
Data modelling to use the past dataset
Mowleeshwaran K
Rakshitha P
Nishalini S


3
Group ideas
Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.
20 minutes
Group ideas
identifying of threshold values of pH temperature and turbidity
statistical recording of pH temperature values in data storing method
lab based water parameter datas
predicting the algal bloom graph
algorithm encryption and decryption class of pH and turbidy of water
water parameters
pH, turbidity temperature sensors connected with arudino
predicting the growth of algae using convertsional method
predicting analysis
real time river water monitoring and control systems
sensor based
manual work
arduino and sensor based water peremeters monitoring
manual checking of water contamination by paper report
ultrasonic radiation for algae control
GSM modules to collect and transfer water quality data to mobile applications
collecting fertilizer and pesticide contaminated water through field site ridges

Priorities

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

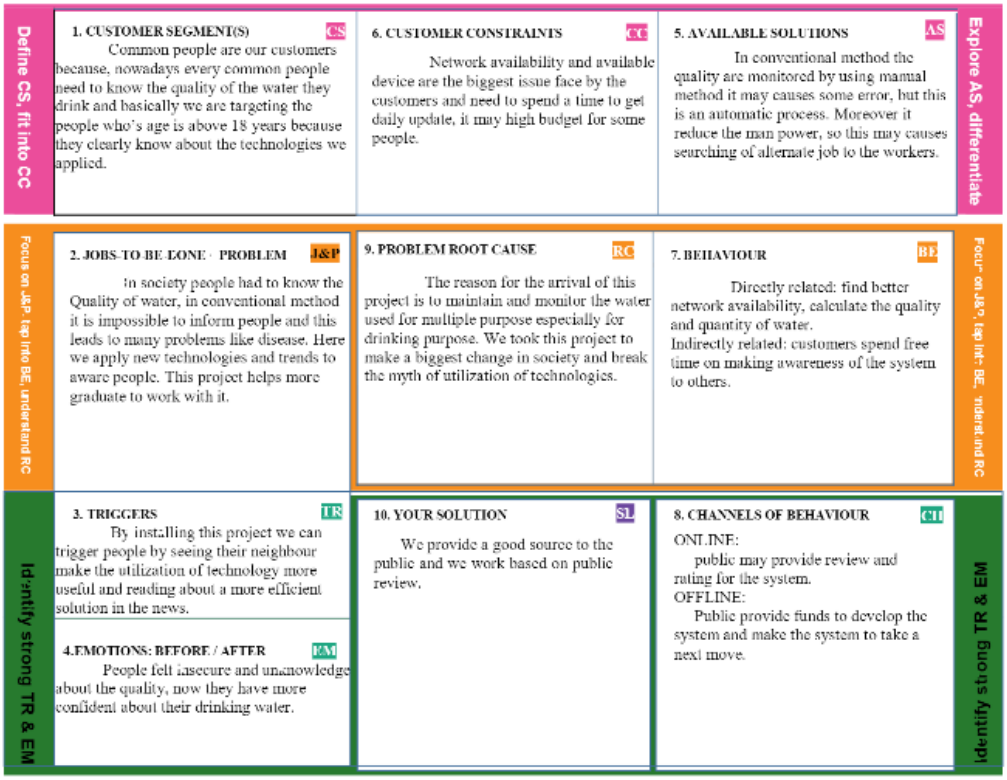
20 minutes

Participants can use their cursors to point at notes while voting; notes should go on the grid. The facilitator can confirm the spacing using the lower pointer holding the **M key** on the keyboard.

3.3 Proposed Solution :

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	A water quality management system helps to check the quality of water which include temperature, humidity and pH in real time and more helpful for human resource.
2.	Idea / Solution description	The idea for this project basically contain sensor for detection of water quality and provide pure water for the public in good condition.
3.	Novelty / Uniqueness	The uniqueness of the project is, it contain high quality sensor with high sensitivity and low cost with multiple use and it provide high quality water.
4.	Social Impact / Customer Satisfaction	Even-though, it reduces the manpower it help more graduates to work on this project and people can more aware about the latest trends and technologies.
5.	Business Model (Revenue Model)	It is more profitable and simple model to manufacture. In business model it provide high revenue with low investment.
6.	Scalability of the Solution	It can withstand over a long period of time, easily usable product and utilization of more technologies.

3.4 Problem Solution fit:



4. REQUIREMENT ANALYSIS:

4.1 Functional requirement:

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sul Requirement (Story / Sub-Task)
FR-1	User Requirements	Monitoring river water quality, water flow, humidity, and temperature to control the algal bloom
FR-2	User Registration	Manual Sign-Up using a Website or Gmail
FR-3	User Confirmation	OTP authentication through phone, email, and confirmation
FR-4	Payments options	Bank transfers, credit cards, debit cards, and ATMs with UPI
FR-5	Product Delivery and installation	Take away Free Installation and 1 year Warranty
FR-6	Product Feedback	Through a website, a phone conversation, and Gmail

4.2 Non-Functional requirements:

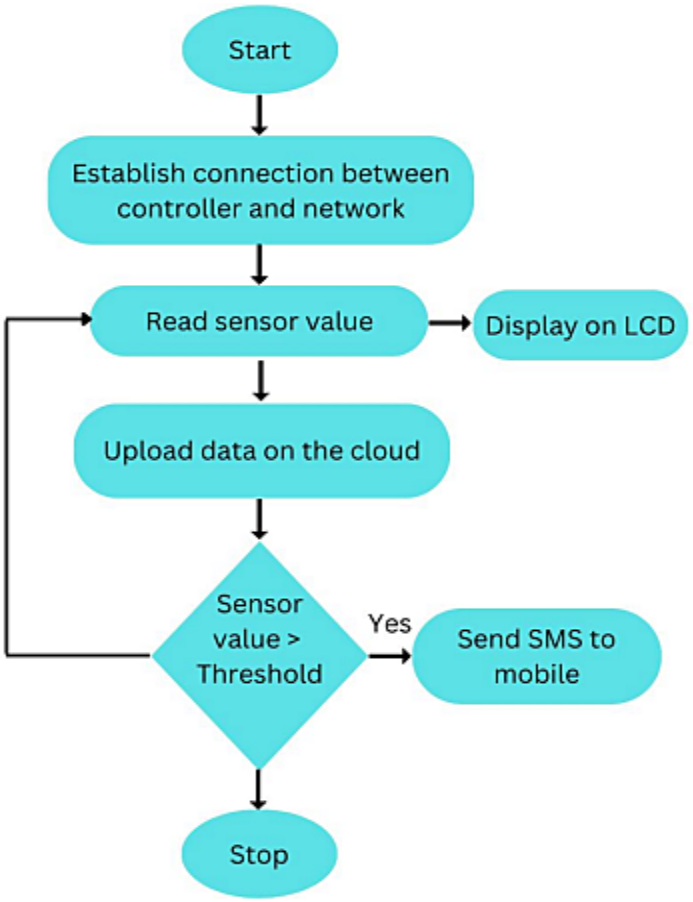
Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Have self-explanatory products that are easy to use and have clear product instructions. and Have an easy-to understand guidebook. simpler to use
NFR-2	**Security**	Application security requires two-step authorization. The user's needs will determine how passwords and passkeys are assigned. The network must contain cloud data, condensing it to be Avoid real-time avoidance, and keep an eye on the board at all times.
NFR-3	**Reliability**	Hardware needs to be checked and maintained regularly. Periodic software updates are possible. Any system breakdown will result in an immediate alarm.
NFR-4	**Performance**	The Application must give accurate results, have a user-friendly interface, and improve the user experience.
NFR-5	**Availability**	Depending on the requirements of the user, all required functions will be offered. When a user requests a feature or makes a tweak, all features will be made available.
NFR-6	**Scalability**	Regardless of size, the product must fill the entire river's space. The product is based on monitoring water quality, flow, humidity, and temperature, as well as controlling algal blooms.

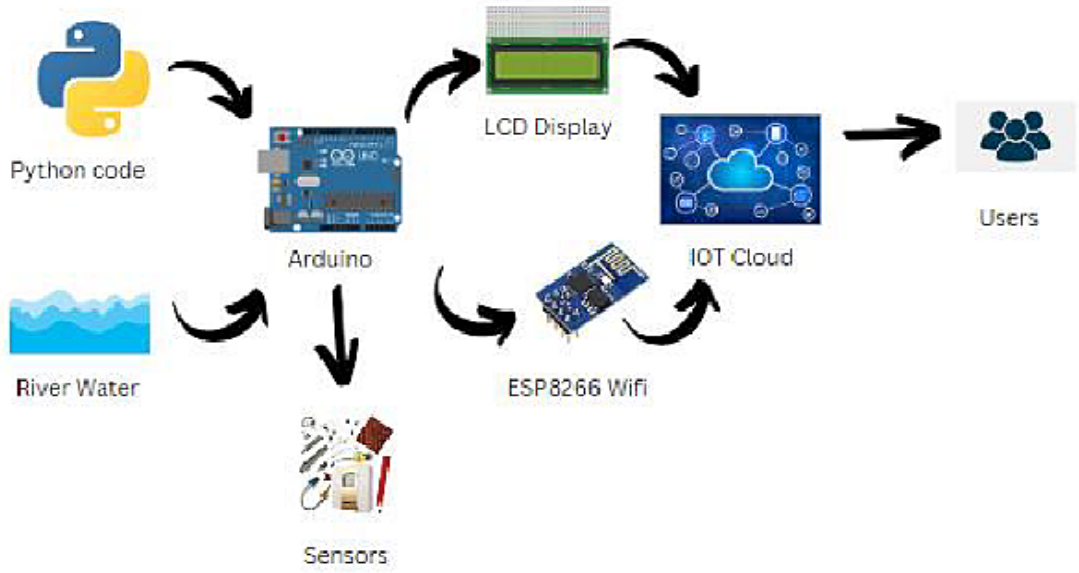
5. PROJECT DESIGN:

5.1 Data Flow Diagrams:

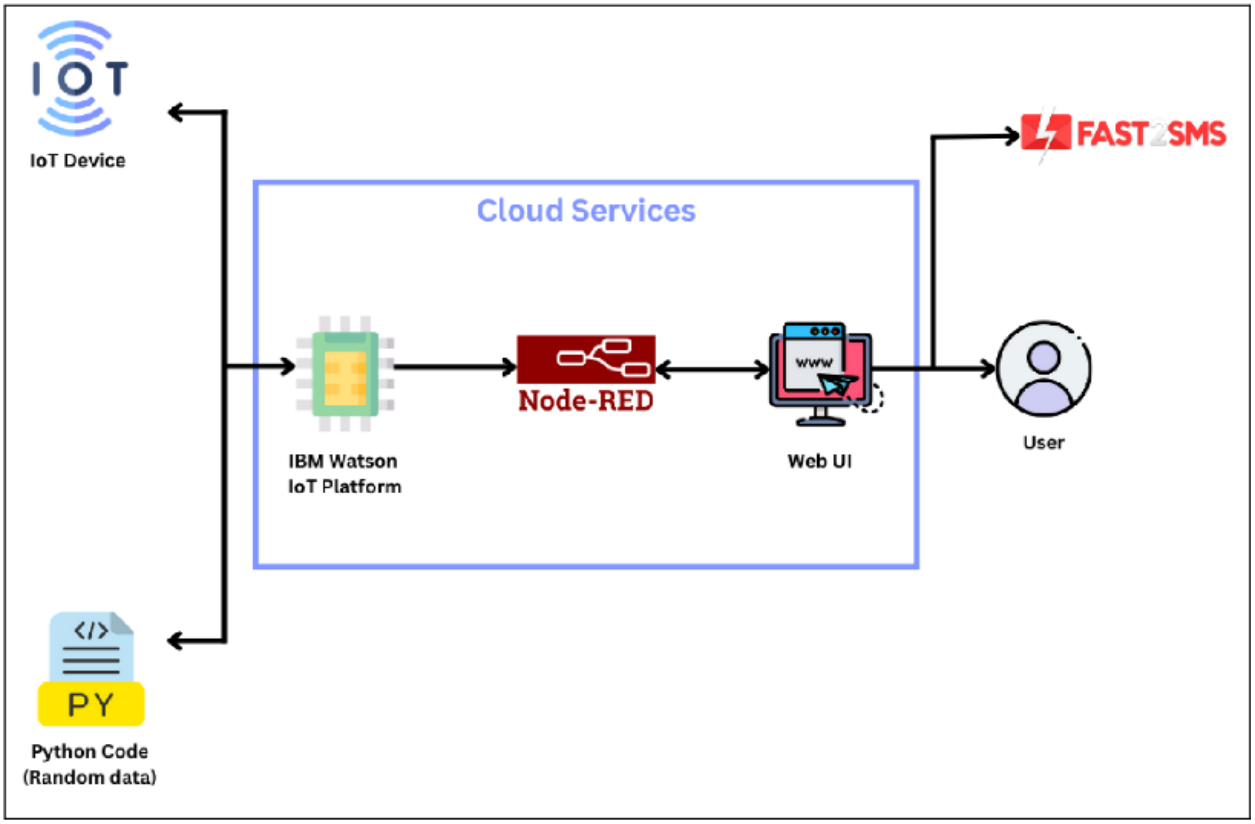


5.2 Solution & Technical Architecture:

Solution architecture:



Technical architecture:



5.3 User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard.	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application.	I can receive confirmation email & click confirm.	High	Sprint-2
		USN-3	As a user, I can register for the application through Facebook.	I can register & access the dashboard with Facebook Login.	High	Sprint-1
		USN-4	As a user, I can register for the application through Gmail.	I can register through the mail.	Medium	Sprint-2
	Login	USN-5	As a user, I can log into the application by entering email & password.	I can receive login credentials.	High	Sprint-1
	Interface	USN-6	As a user, the interface should be user-friendly.	I can access it easily.	Medium	Sprint-1
Customer (Web user)	Dashboard	WUSN-1	As a web user, I can access the specific info (ph value, temp, humidity, quality).	I can able to know the quality of the water.	High	Sprint-1
Customer Care Executive	View manner	CCE-1	As a customer care, I can view data in visual representation manner(graph).	I can easily understand by visuals.	High	Sprint-1
	Taste	CCE-2	As a customer care, I can able to view the quality(salty) of the water.	I can easily know whether it is salty or not.	High	Sprint-1
	Color visibility	CCE-3	As a customer care, I can ably predict the water color.	I can easily know the condition by color.	High	Sprint-1
Administrator	Risk tolerant	ADMIN-1	An administrator who Is handling the system should update and take care of the application.	Admin should monitor the records properly.	High	Sprint-2

6. PROJECT PLANNING & SCHEDULING:

6.1 Sprint Planning & Estimation:

S.NO	ACTIVITY	ACTIVITY DESCRIPTION	DURATION
1	Understanding the project requirement	The Aim is team members are assigned with tasks for each to be executed as a responsible team lead.Also create repository in theGithub, Assign members andteach how to use and open the Github and IBM career education portals .	1 WEEK
2	Starting of project	Advisory of team lead to his team members based on regularly attending training sessions for installing and use of prerequiste . Also necessarily attending the training sessions based on python code,development ofandroid app in mobile app invtr.com and working alongNodeRed is ensured by the team lead and acknowledged by team members simultaneously.	1 WEEK
3	Attend class	Team members and team lead must watch and learn from classes provided by IBM and NALAYATHIRAN and must gain access of MIT license for their project.	4 WEEK
4	Budget and scope of project	Budgetary planning process taken up on whole as a team to detect the user compatible price to the buythe product based onbudgetary on IOT and component level.	1 WEEK

6.2 Sprint Delivery Schedule:

Project Planning Phase

Sprint Delivery Plan

Date	**02 November 2022**
TeamID	**PNT2022TMID31860**
Project Name	**Real-Time River Water Quality Monitoring and Control System**

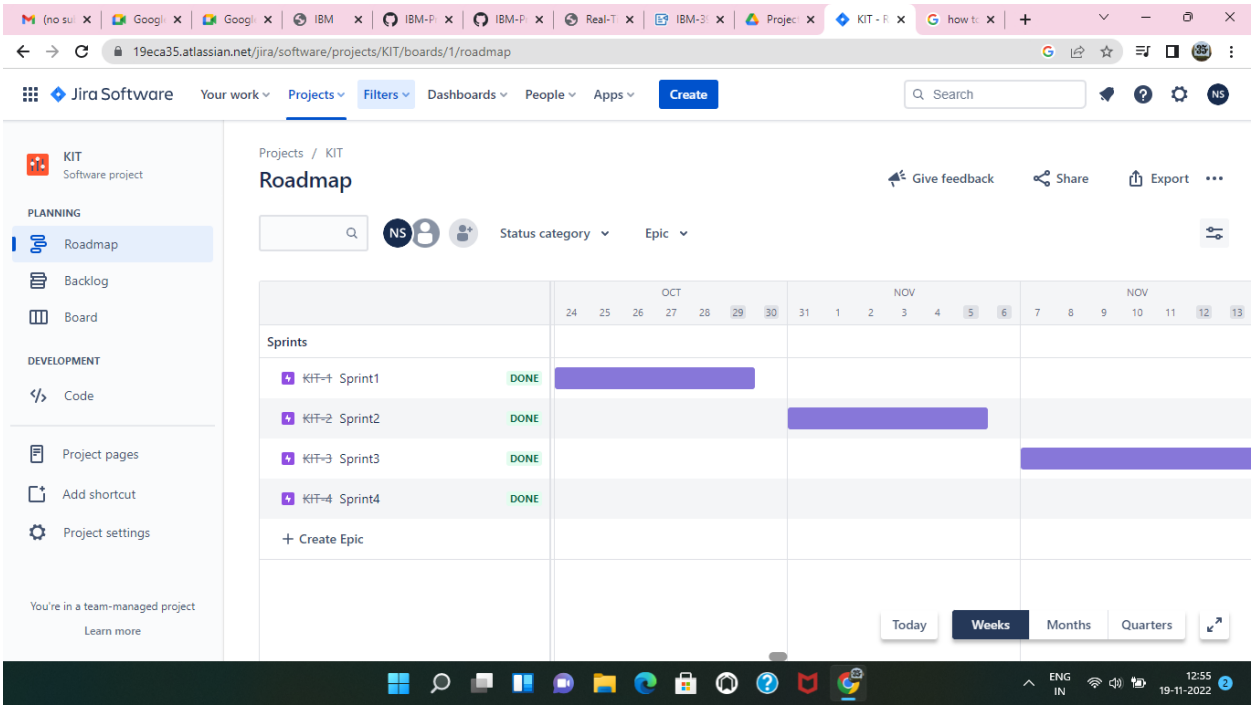
Product Backlog, Sprint Schedule, and Estimation (4 Marks)

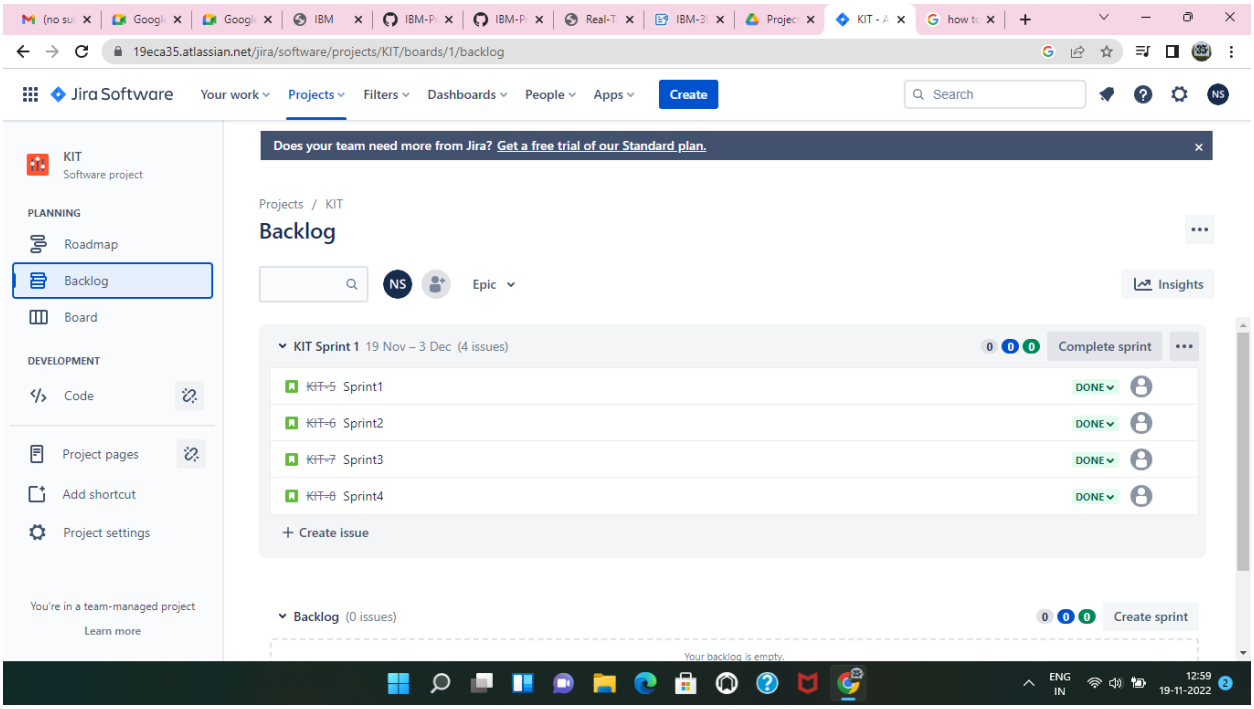
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for application by entering my email, password, and confirming my password.	2	High	**Kiran S**
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	**Mowleeshwaran K**
Sprint-2		USN-3	As a user, I can register for the application through Facebook	2	Low	**Nishalini S**
Sprint-1		USN-4	As a user, I can register for the application through Gmail	2	Medium	**Rakshitha P**
Sprint-1	Login	USN-5	As a user, I can log into the applicationby Entering email & password	1	High	**Kiran S**

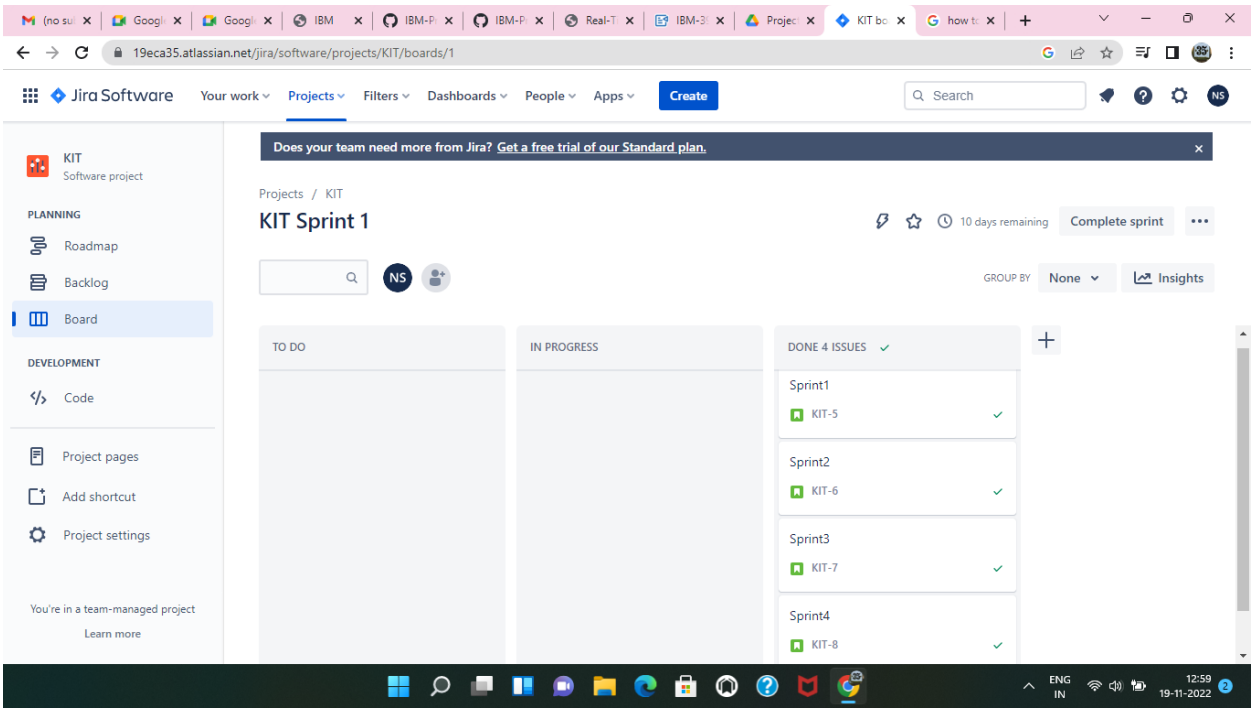
Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint StartDate	Sprint End Date(Planned)	Story Points Completed (as on Planned End Date)	Sprint ReleaseDate (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	30	30 Oct 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	49	06 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	50	07 Nov 2022

6.3 Reports from JIRA:







7. CODING & SOLUTIONING:

7.1 Feature 1:

- IOT device
- IBM Watson platform
- Node red
- Cloudant DB
- Web UI
- Geofence MIT App
- Python code

7.2 Feature 2:

- Registration
- Login
- Verification
- SMS
- Adding Queries

```
labl_0 = Label(base, text="Registration form",width=20,font=("bold", 20))
labl_0.place(x=90,y=53)
lb1= Label(base, text="Enter Name", width=10, font=("arial",12)) lb1.place(x=20, y=120)
en1= Entry(base) en1.place(x=200, y=120)
lb3= Label(base, text="Enter Email", width=10, font=("arial",12)) lb3.place(x=19, y=160)
en3= Entry(base) en3.place(x=200, y=160)
 lb4= Label(base, text="Contact Number", width=13,font=("arial",12)) lb4.place(x=19,
y=200) en4= Entry(base) en4.place(x=200, y=200)
lb5= Label(base, text="Select Gender", width=15, font=("arial",12)) lb5.place(x=5,
y=240) var = IntVar()
Radiobutton(base, text="Male", padx=5,variable=var, value=1).place(x=180, y=240)
Radiobutton(base, text="Female", padx =10,variable=var, value=2).place(x=240,y=240)
Radiobutton(base, text="others", padx=15, variable=var, value=3).place(x=310,y=240)
list_of_cntry = ("United States", "India", "Nepal", "Germany") cv = StringVar() drplist=
OptionMenu(base, cv, *list_of_cntry) drplist.config(width=15) cv.set("United States")
lb2= Label(base, text="Select Country", width=13,font=("arial",12))
lb2.place(x=14,y=280)
drplist.place(x=200, y=275)
 lb6= Label(base, text="Enter Password", width=13,font=("arial",12)) lb6.place(x=19,
y=320)
en6= Entry(base, show='*') en6.place(x=200, y=320)
 lb7= Label(base, text="Re-Enter Password", width=15,font=("arial",12)) lb7.place(x=21,
y=360) en7 =Entry(base, show='*') en7.place(x=200, y=360)
 Button(base, text="Register", width=10).place(x=200,y=400) base.mainloop()
def generateOTP() :
 # Declare a digits variable
 # which stores all digits digits = "0123456789"
 OTP = ""
# length of password can be changed
 # by changing value in range for i in range(4) :
OTP += digits[math.floor(random.random() * 10)]
return OTP
# Driver code if __name__ ==
"__main__" :
print("OTP of 4 digits:", generateOTP())
 digits="0123456789" OTP=""
for i in range(6):
```

```
OTP+=digits[math.floor(random.random()*10)]
otp = OTP + " is your OTP" msg= otp s = smtplib.SMTP('smtp.gmail.com', 587)
s.starttls() s.login("Your Gmail Account", "You app password")
emailid = input("Enter your email: ")
s.sendmail('&&&&&&&&&&',emailid,msg)
a = input("Enter Your OTP >>: ")
if a == OTP: print("Verified")
else: print("Please Check your OTP again") roo
```

8. TESTING:

Testing is more important in every project because we need to know the performance such that the value of product is depend up on the performance .

8.1 Test Cases:

1.Controlling of app from the phone

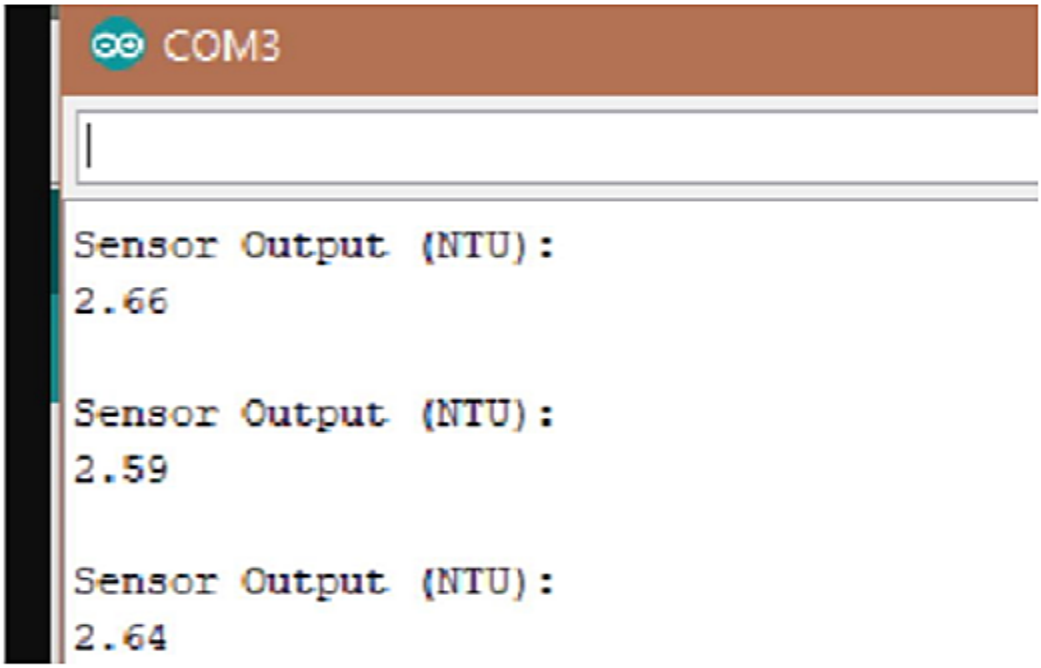
2.Time complexity of data flow.

3.Peformance

4.Data from node to UI and to user.

8.2 User Acceptance Testing:

Most of our development is done through the IBM platforms so that the sensors suggested that no need of particular testing. But user performance is well and good.



9. RESULTS:

We are displaying the resulting sensed pH, temp, turbidity, and ORP values. It continuously senses the values of pH, temp, turbidity, and ORP and the resulting values are displayed to the LCD, PC or mobile in real-time. If the acquired value is above the threshold value comments will be displayed as ‘BAD’. If the acquired value is lower than the threshold value comments will be displayed as ‘GOOD’. A bar/line graph will also be shown for perfect understanding. The time series representation of sensor data with decision the resulting sensed pH, temp, turbidity, and ORP values. It continuously senses the values of pH, temp, turbidity, and ORP and the resulting values are displayed to the LCD, PC or mobile in real-time. If the acquired value is above the comments will be displayed as ‘GOOD’. A bar/line graph will also be shown for perfect understanding. Most of our development is done through the IBM platforms so that the sensors suggested that no need of particular testing. But user performance is well and good.

10. ADVANTAGES & DISADVANTAGES:

Advantages:

The benefits of advancing to a real-time water quality monitoring system are many but include as the most important access to instantaneous data,ease and convenience of use and improved accuracy of water quality measurements.

Disadvantages:

The lab testing and analysis takes some time and hence the lab results does not reflect real time water quality measurement due to delay in measurement.This process is time consuming due to slow process of manual data.

11. CONCLUSION:

Compared to the previous related works, the cost of the system prototype is considerably low. To ensure the portability of the device, a self-made, small size Arduino microcontroller is used. The developed system was tested under different conditions, with solution of water with different impurities, and in different periods of time.To test more parameters of the water quality for some applications, other sensors can be included in the system. The system has wide application and it is usable and affordable by all categories of users.

12. FUTURE SCOPE:

The capability of water quality monitoring system can be enhanced to obtain more efficient reliable results. The number of parameters to be sensed can be increased by the addition of multiple sensors to measure dissolved oxygen (DO), chemical oxygen demand (COD), biochemical oxygen demand (BOD), ammonia nitrogen, nitrate, nitrite, phosphate. The system can be further upgraded using wireless sensor networks. The system can be expanded to monitor hydrologic, air pollution, industrial and agricultural production and so on. It has widespread application and extension value. Work can be carried on to include controlling the supply of water.

13. APPENDIX:

source code:

```
<html>
    <head>
        <meta charset="UTF-8">
        <title> Login </title>
        <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
    </head>
    <body></br></br></br></br></br>
        <div align="center">
          <div align="center" class="border">
            <div class="header">
              <h1 class="word">Login</h1>
            </div></br></br></br> <h2
           class="word">
              <form action="{{ url_for('login') }}"
method="post">                                    <div class="msg">{{ msg
                                                  }}</div><input
                                                  id="username"name="username"
type="text" placeholder="Enter Your Username" class="textbox"/></br></br>
                                        <input id="password" name="password" type="password"
placeholder="Enter Your Password" class="textbox"/></br></br></br>
                              <input type="submit" class="btn" value="Sign In"></br></br>
              </form>
            </h2>
            <p class="bottom">Don't have an account? <a class="bottom"
href="{{url_for('register')}}"> Sign Up here</a></p>
          </div>
        </div>
    </body>
</html>
```

Register.html

```
<html>
    <head>
        <meta charset="UTF-8">
        <title> Register </title>
```

```
        <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
    </head>
    <body></br></br></br></br></br>
        <div align="center">
          <div align="center" class="border">
            <div class="header">
              <h1 class="word">Register</h1>
            </div></br></br></br> <h2
            class="word">
                  <form action="{{ url_for('register') }}"
method="post">                                    <div class="msg">{{ msg }}</div>
                                                    <input id="username" name="username"
type="text" placeholder="Enter Your Username" class="textbox"/></br></br>
                                                <input id="password" name="password" type="password"
placeholder="Enter Your Password" class="textbox"/></br></br>
                                <input id="email" name="email" type="text"
placeholder="Enter Your Email ID" class="textbox"/></br></br>
                                <input type="submit" class="btn" value="Sign
Up"></br>                                          </form>
                                                    </h2>
                                                <p class="bottom">Already have an account? <a
class="bottom" href="{{url_for('login')}}"> Sign In here</a></p> </div>
        </div>
    </body>
</html>
```

Style.css

```
.header{ padding: 5px 120px; width: 150px;
                height:
                70px; background-color: #236B8E;
            }

            .border{ padding: 80px 50px; width:
                400px; height:
                450px;
                border: 1px solid #236B8E; border-radius: 0px;
                background-color: #9AC0CD;
```

```
}

.btn {
padding: 10px 40px; background-color: #236B8E; color: #FFFFFF;
        font-style: oblique; font-weight: bold;
        border-radius: 10px;
}

.textbox{ padding: 10px 40px; background-
        color: #236B8E; text-color: #FFFFFF;
        border-radius: 10px;
}

::placeholder { color:
        #FFFFFF; opacity: 1; font-
        style: oblique; font-weight:
        bold;
}

.word{ color: #FFFFFF; font-style:
        oblique; font-weight: bold;
}

.bottom{ color: #236B8E; font-
        style: oblique; font-weight:
        bold;
}
```

GitHub & Project Demo Link

:https://drive.google.com/file/d/1ScZSqeQuPWz7o4RgRQFVsK9f9zjo6qzk/view?usp=drivesdk