SMART WATER SYSTEM

SUBMITTED BY,

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# ABSTRACT

The efforts required in achieving required output can be effectively and economically be decrease by the implementations of better designs. If you design well of the project then will easily be able to create your project in less time with respect to others. So it is very important to create your designs or patterns first.

# Introduction

This project aims to learn how to save water from continuous degradation. Smart water management is essentially a system designed to gather meaningful and actionable data on the flow, pressure and distribution of a city's water. Its main goal is to ensure that the infrastructure and energy used to transport water are managed effectively.

Nowadays, every individual are using water and making some mistakes like when they are using for some purpose such as bathing, for fresh or many more. They leave the tap opened until unless their works did not completed. They don’t have idea that water is degrading time by time and will not be available for the next generation event it might be problem for ourselves but they are ignoring this and thinking that water is renewable resources and can be renew time by time or many more.

# Methodology

Developers believe that these features are important for all the people once they shall be the part of the community further. It’ll be open source, it means whatever new features should anyone want to add they have need permission of the author to add extra functionality. Also collaboration with other teams, automation of the repetitive process, continuous integration of development branch changes to the application source code, continuous delivery of the updates to the application, continuous testing of the development branch code, continuous monitoring of all the processes involved in the software development.

PROJECT DEFINATION AND DESIGN THINKING

1.Collaboration

Development and IT operation teams work together for building awesome products to serve their customers better. The communication gap between the groups is the cause for this concept and it is not only limited to the Software Developing Organizations as collaboration is needed by everyone. Its success is directly proportional to how well the teams or individuals collaborate to get their work done rapidly and efficiently.

1. Automation

This Concept is based on automation so we need tools to perform it. Either build the tools or buy them or you can make use of available open-source tools. Also we need these tools to automate the repetitive tasks of the software development and also the deployment process as the product needs to be deployed for production.

1. Continuous Integration

Continuous Integration is a technique for integrating the source code updates from all developers working on the project into the main branch regularly and automatic build checks for errors. The continuous integration of code prevents developers from merge conflicts.

1. Continuous Testing

The testing process is easy till cost starts rising exponentially, impact of software failures is also very dangerous, no one wants to make a release that may affect the user experience of its customers, introduction of new features may expose the organization to a security threat, affects reliability, and compliance-related risks.

It is not only a Quality Assurance function but it starts from the development phase.

# Results

My study found that when someone enter any input like for my project if they enter how much amount of water he/she wants it will give instructions to the Arduino that you have to provide such amount of water only and and through wire it’ll give desired output to the consumers and will take such an amount of water. Like if you choose 1 litre of water it’ll give you the same amount of water, if you choose 20 litres of water it’ll give you 20 litres of water .

And after that you’ll have been provided total amount of costs per litre and also will be able to see the amount that consumers used in a given period of time.

# Conclusion

**Performance Estimation**

It may help to collect and providing help flawlessly in detail. In a very short time, the collection will be obvious, simple, and helpful. It will help any person looking for intricate guidance to plan a small business or startup. It also helps in managing all the current works relative to the user's needs. It will also contribute to the reduction of the general cost of software maintenance by 80%.

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**Limitations**

* + - **Ambiguous:**

Since IoT is new and unclear on its definition, goals of adoption, and lack of understanding of its concepts.

* + - **Management Structure:**

Between developers and operators, there is a lack of management structure as IoT yet is not systematically managed and organized.

* + - **Training:** As it is new most operators and Developers lack proper understanding or training of its operations and Principles hence new technology tools and methods of IoT are not clearly understood.
    - **Experience:**Shortage of IoT experienced individuals hence the whole concept is learned and practices to obtain experience at present time and apply in the project, hence it may result in a long time of its implementation.