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Classwork

18/ENIG02 606 Computer Engineering

Name of the software is Called Automated Irrigation system  
SDIC:

### ① Identifying the Current problem:

The major Challenges of abroad farm is the dry season and the irrigation system of the farm. I will build a software and that can bring solution to this problem.

### ① Requirement

- It will have a passcode for staff's only
- We need training for one week on how to use the software
- It will have a login page
- It will have a logout page
- It consist of a signing option that will give all staff different "user ID and password"

### ② Planning

#### • ① user Registration

- Password field
- Check box (To accept terms and conditions)
- Submit button
- save user in database

#### ② Login page

- username input field
- password field
- Submit button
- Read user from database

#### ③ Logout button

- Logout button
- Clear session

#### ④ Dashboard

- Main home page
- option to check level of the tank and temperature of the soil and to read them.
- New user should redirect here
- Existing users direct here after login

### Design

- Colour scheme: Orange, Gray
- layout: Responsive web design
- programming language: Ruby, Java

### Implementation

- (i) setting a physical hardware for the water system and software, where software can be controlled and water system can be managed
- (ii) Designer will continue planning the user interface
- (iii) Production of the hardware and control functions
- (iv) Testers will analyse the requirement (start building test cases for their test plans)

### Testing

- Making sure passwords and user id are secure
- Making sure ~~the~~<sup>hardware</sup> is properly working efficiently
- When users logout ability for the software to clear session
- Making sure there is no bugs in the software.

## Deployment

- Making sure hardware and software are properly working and Ready for production

## Maintenance

- They will be a complain bar, my maintenance team will come and attend to those complains
- Making sure there are no bugs on the software

## Hardware Features

They will be a built machine just for software ~~it~~ and it is also a control panel. It will comprise of a touch screen tablet. They will be like a mother box where hardware will be connected. It will serve as a power source for the hardware once you switch your machine "on" your screen will automatically show you where you put your password and user ID. The hardware will have a button that controls the water system. It will be like a switch button. It will have three light of operation "FIRST", before it will be activated. If it shows you a red light that means there is an issue maybe in the connection and yellow means a warning sign that will caution you and green light that mean the machine is ready for operation.

## Software Features.

It will have user ID and password column. Beneath it will be a sign in button and a forget password, user ID button. New staff are expected to sign in first and immediately a password will be issued out. The only people that are allowed to sign in are those authorised once your password as be issued then the dashboard pops out. In the dashboard they will be options on temperature reading, level of water in the tank, moist content

## Algorithm and Flow Chart

- ③
- step 1: start
  - step 2: Output "Irrigation system"
  - step 3: Output "input password and user ID"
  - step 4: input "login"
  - step 5: Dashboard
  - step 6: option
  - step 7: identify option
  - step 8: logout
  - step 9: stop

