**Synopsis**

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| 1 | Name of the Project | Automated Gardening |
| 2 | Objective Vision | To make a IOT based model that enables the farmers to avail the facility of irrigation of soil and crop selection effectively. |
| 3 | Users of the System | a. Admin  b. Farmers |
| 4 | Functional Requirements  ( At least Eight) | 1. A system for an Admin who can take and analyse the data from the sensors.  2.Motor will get automatically on when temperature will become more the 50degree Celsius and water level will become >500mm  3. Farmer will get notification whenever motor is ON or OFF  4. Farmers receive SMS alerts when temperature gets too high and water level becomes too low.  5. The facility of crop selection according to the temperature ,humidity and soil type  6. Farmers will get to know that which crop to grow in which season and for good productivity.  7. Admin can monitor every activity which is performed by system.  8.Farmers can view the details of temperature ,humidity  ,moisture of soil and types of crops. |
| 5 | Non-functional requirements ( At least Four) | 1. Security of crops and farms from different diseases and disasters.  2. 24x7 availability  3. User Friendly |
| 6 | Optional features | 1. Sending Notifications to Farmers regarding temperature, motor and crops  2. Reminder for the Farmer regarding the ON and OFF of motors |
| 7 | User interface priorities | 1. It is hardware project , it is a model based project. |
| 8 | Reports | 1. System will generate Monthly Reports and Weekly Reports |
| 9 | Other important issues | 1. Report fluctuations in temperature and water level. |
| 10 | Team Size | 2 |
| 11 | Technologies to be used | Python 3.0,Machine Learning and IOT |
| 12 | Tools to be Used | 1. Raspberry Pi  2. Sensors  3.Motors  4.Anaconda |
| 13 | Final Deliverable must include | 1. IOT and ML based model for irrigation to farmers.  2.Mobile Application to get notifications.  3.Complete Source code |