American International University-Bangladesh (AIUB)

Faculty of science and Information Technology

Software Development Project Management Plan

For

Smart Doctor

Submission Date: 6th May, 2018

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Subject: Software Development Project Management

Section: B

Course Teacher: Mohammad Mahmudul Hasan

Revision Story:

Revision	Author	Description	Date
1.0.0 New	DAS, SUDIPTA CHOWDHURY, MD. REAZ UDDIN SHUBHOM, NAZMUS SAKIB ISHTIAQUE, SHAMS AHMED, RASEL	Initial Edition	06/05/2018

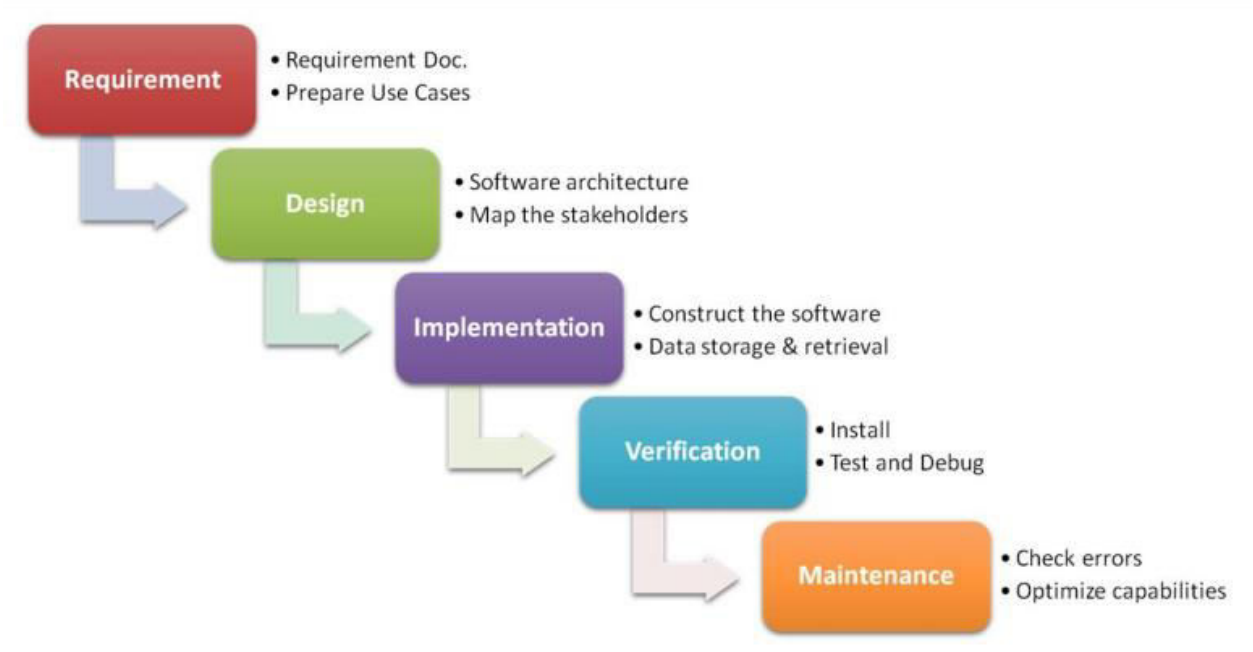
Introduction: This is the project management plan for developing a smart medicine system. This system is only for primary diseases. This system is for poor people who lives in slam and village. In this system, admin panel is the higher authority. His job is to recruit new people and generating report of all activities of other user. Doctor's job is to insert the level of diseases, diseases information and symptoms and regarding that information they assign medicine and the workable area. When any patient come to take treatment, operator inserts their diseases information and system search medicine against those information. If found and the level of diseases is greater than 3 than propose medicine. If not, than refer a doctor that is registered in the system.

Process Model: For developing the system we decide waterfall model.

Why Waterfall Model: We have chosen waterfall model because it is very simple and easy to use. Besides our obligation are very clear, well defined.

1. This model is simple and easy to understand and use.
2. It is easy to manage due to the inflexibility of the model – each phase has specific deliverables and a review process.
3. In this model phases are processed and completed one at a time. Phases do not overlap.
4. Waterfall model works well for smaller projects where requirements are very well understood.

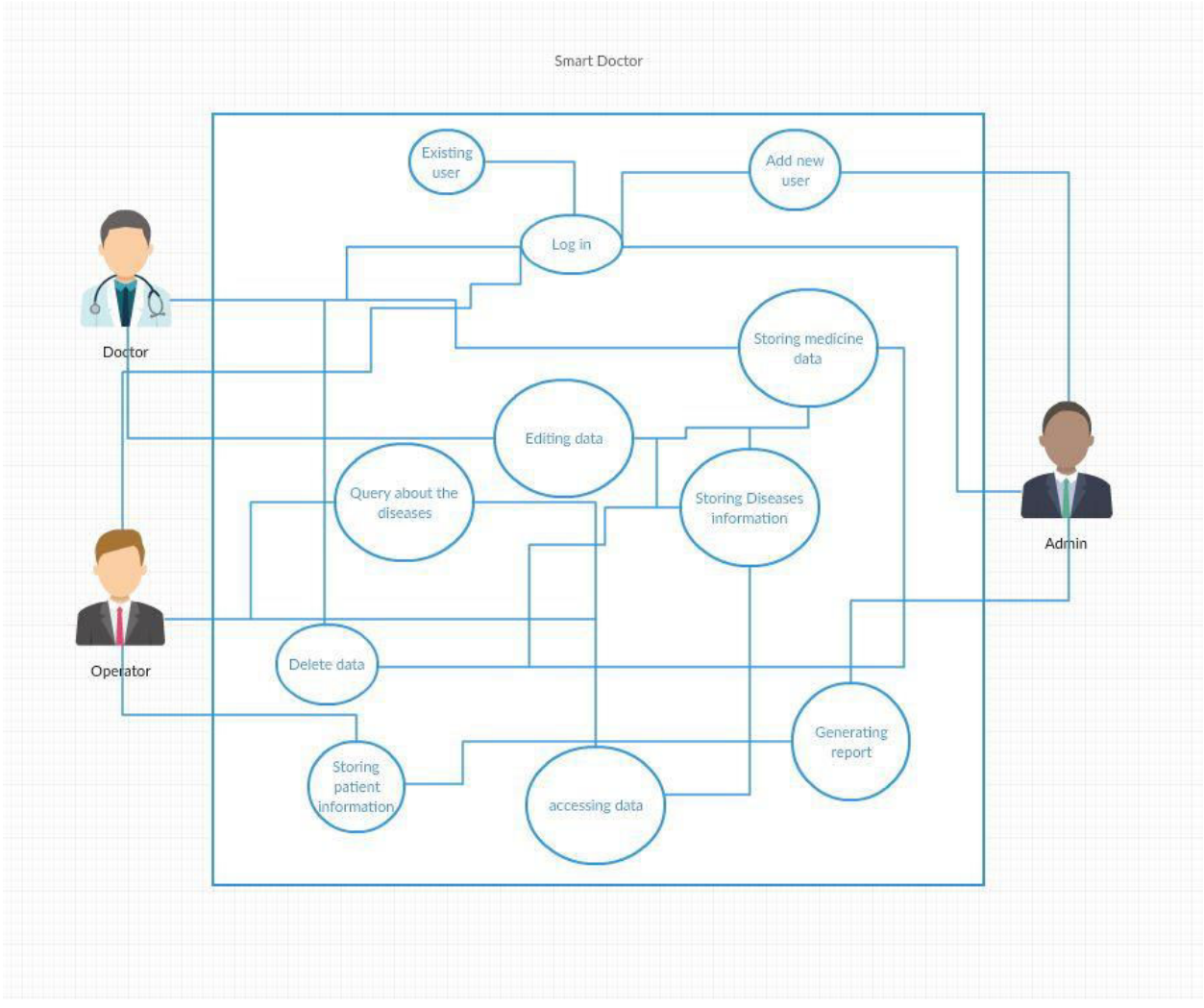
Flow Chart of Waterfall Model:



Quality Assurance Model:

Work Product	QA Procedures
S/W development plan	Test as formal technical review.
S/W requirement specification	Checking word spell and grammar.
Design	Inspection.
Code	Walkthrough.
System test	Test coverage management.
Alpha testing	3 weeks in developer's site.
Beta testing	1 month in client's site.
Acceptance testing	Test by client's representative.

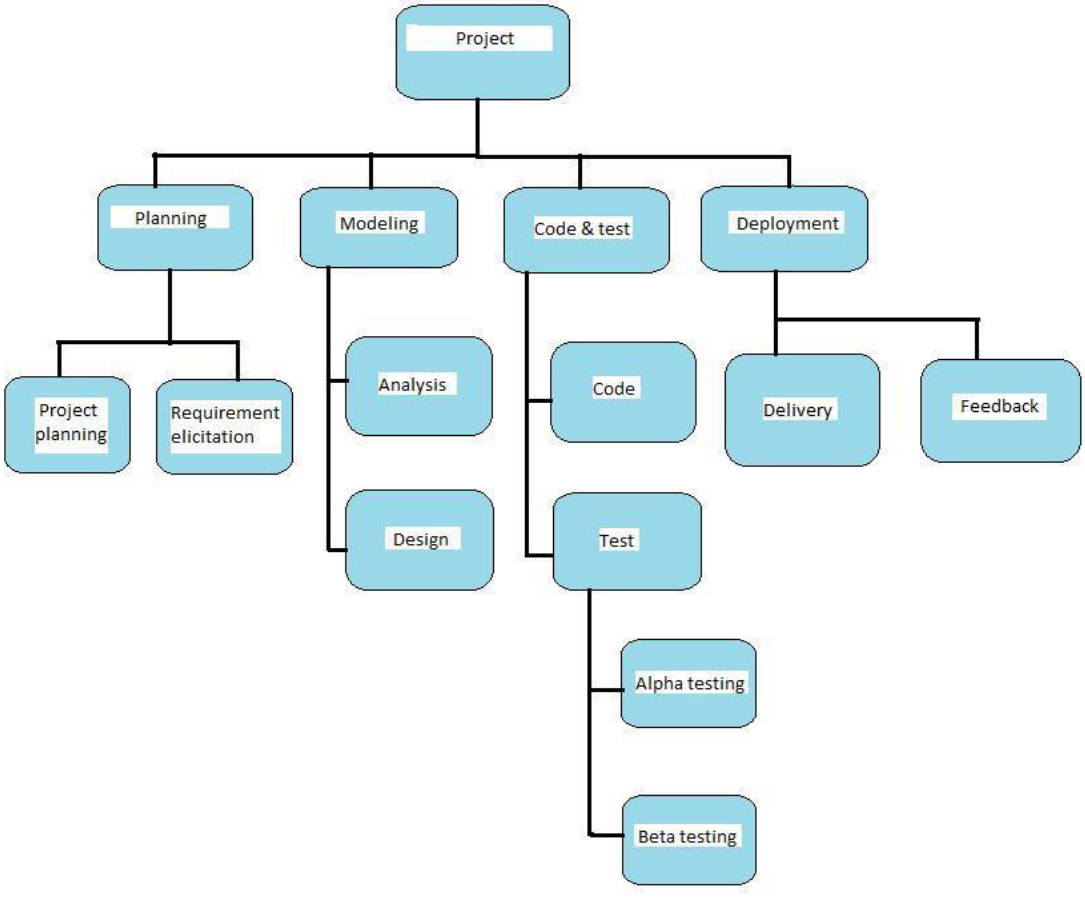
Use Case:



List of task:

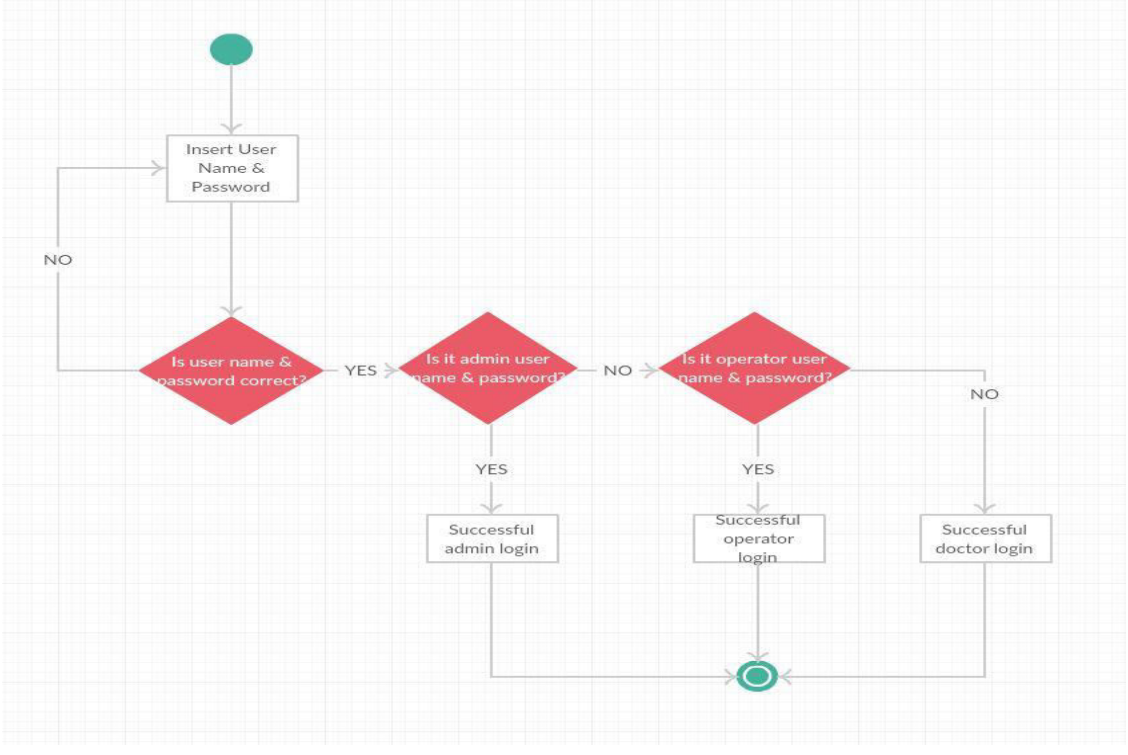
Number	Activity
01	Requirement elicitation
02	Project planning
03	Preparing SRS
04	Analysis requirement
05	Design the system
06	Implementation
07	Testing
08	Deployment

Work Breakdown Structure (WBS):

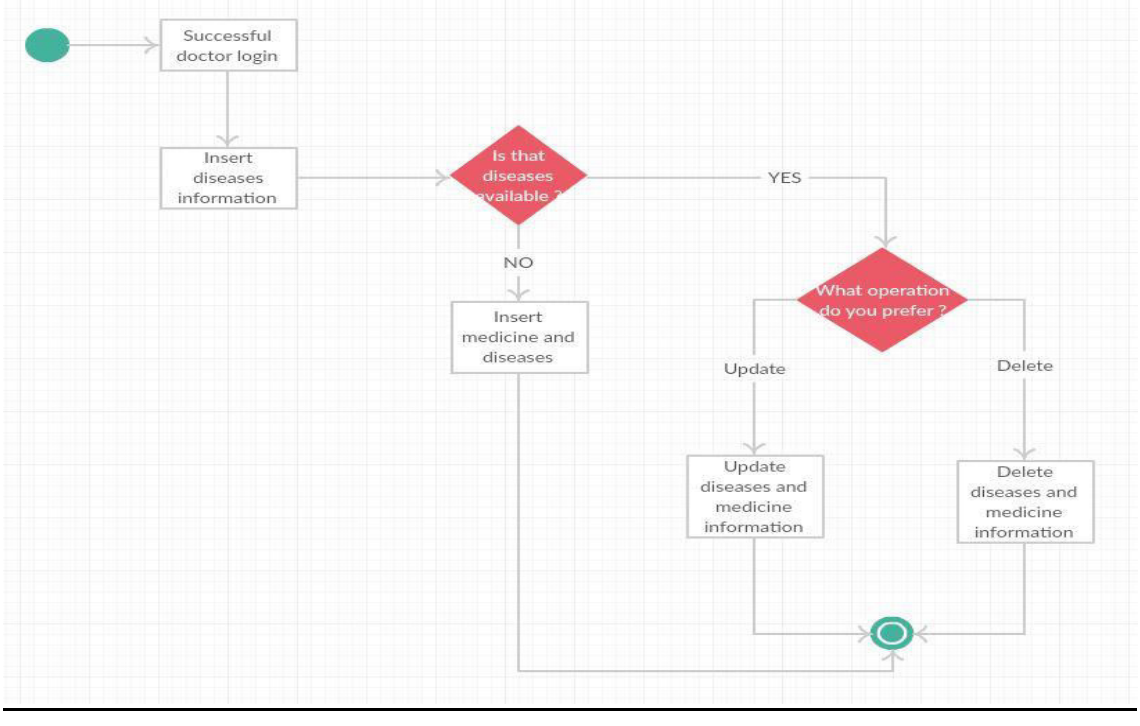


Activity Planning:

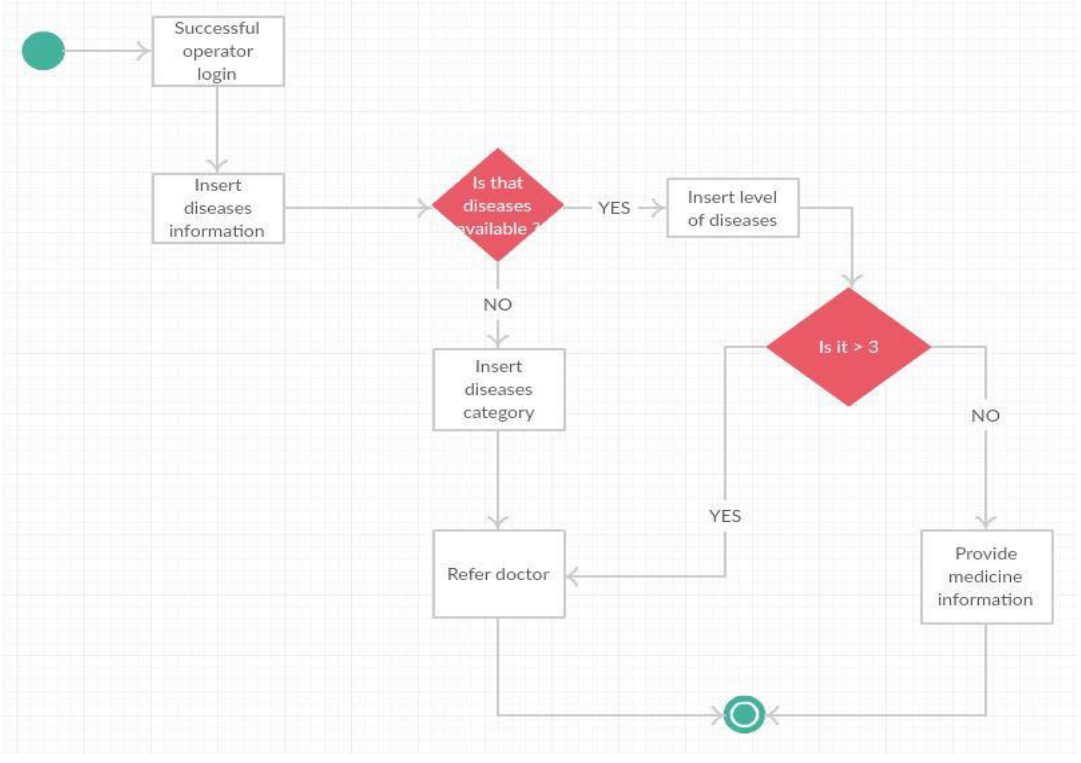
Activity of Login:



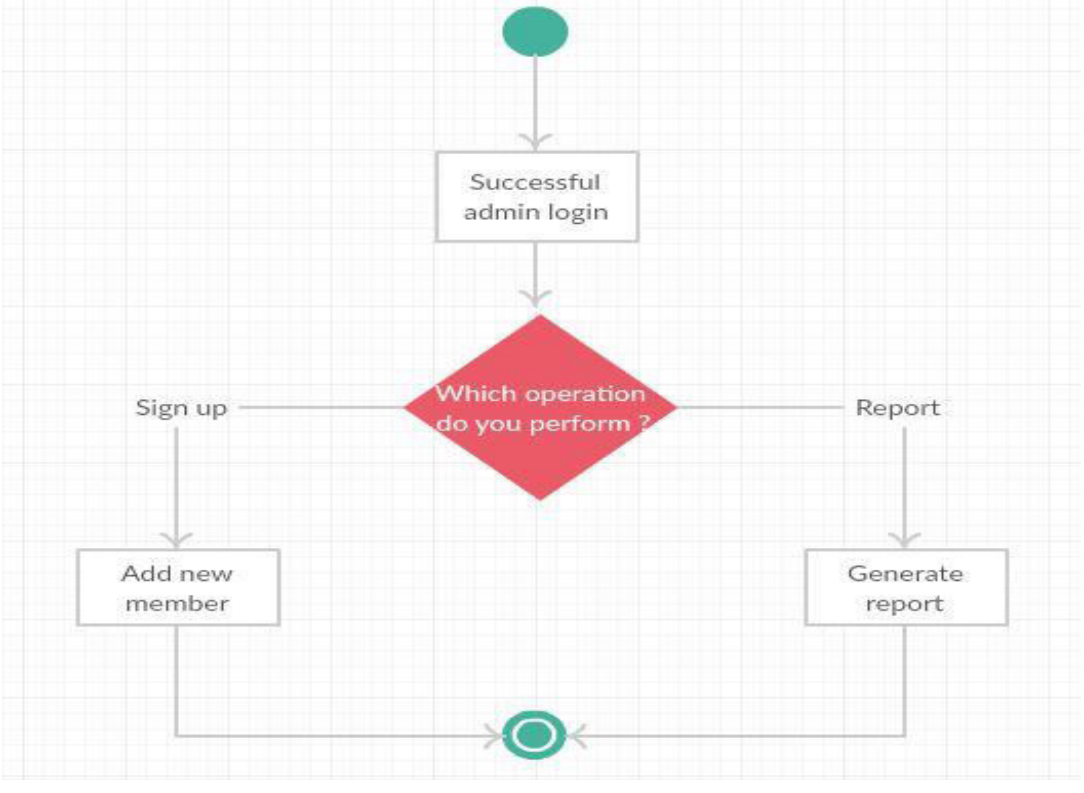
Activity of Doctor:



Activity of Operator:



Activity of Admin:



Technology Consideration:

Software Interface:

- Programming Language: JAVA
- Database: MySQL
- Development Tool: NetBeans

Hardware Requirements:

- OS: Linux/Windows
- CPU: Minimum Intel Pentium or Higher
- RAM: 2 GB or Higher
- Hard Drive: 1GB or more

Estimation of Each Task: For estimation we choose COCOMO model.

Complexity, P=1.12
SLOC dependent coefficient, T=0.35
SLOC= 8000
Effort, PM= Coefficient<effort factor>*(SLOC/1000) ^P
= 3.0 * (8000/1000) ^ 1.12
=31 person-month
Development time, DM =2.50*(PM) ^T
=2.50 * 31 ^ 0.35
=8.3 months
Required people, ST=PM/DM
=31/8.3
=3.7
= 4

Risk Management:

Process: To find out the risk in the project we first identify the risk than analyze that risk. We plan what to do with the risks and finally monitor that risk and generate the report against the risk.

Risk Identification: Risk can be occur in several areas as the following.

- Preparing elicitation
- Design the system
- Logic implementation
- Underestimate and overestimate budget and cost
- Test plan
- Lack of experienced people in complex area

Risk Analysis:

Risk	Probability	Impact
Elicitation requirements	Significant	High
Design the system	Significant	High
Logic implementation	Moderate	Low
Underestimate and overestimate budget and cost	High	High
Test plan	Low	Low
Lack of experienced people in complex area	Low	Moderate

Risk Response Planning:

Risk	Approach	Remark
Elicitation requirements	Transfer	Accept by client
Design the system	Accept	N/A
Logic implementation	Accept	N/A
Underestimate and overestimate budget and cost	Mitigate	Involve some other experienced person.
Test plan	Avoid	N/A
Lack of experienced people in complex area	Accept	N/A

Risk Monitoring, Control, and Reporting: From the risk analysis and approach planning all the risks will be monitored and their status. If any uncertainty happens than it will be controlled. Some controlling mechanism are given below

1. Fix the weekly project status meeting.
2. Configuration management, Quality assurance and Documentation are the most supportive for monitoring and controlling a project.
3. Plan to keep control for success to the desire project.
4. Define the report formats review and other tools to monitoring and controlling the project.
5. Cost and scheduling are the biggest part.
6. Tracking the risks.

7. Quality assurance, configuration management, documentation and training are the project support function for monitoring and controlling

Resource Planning:

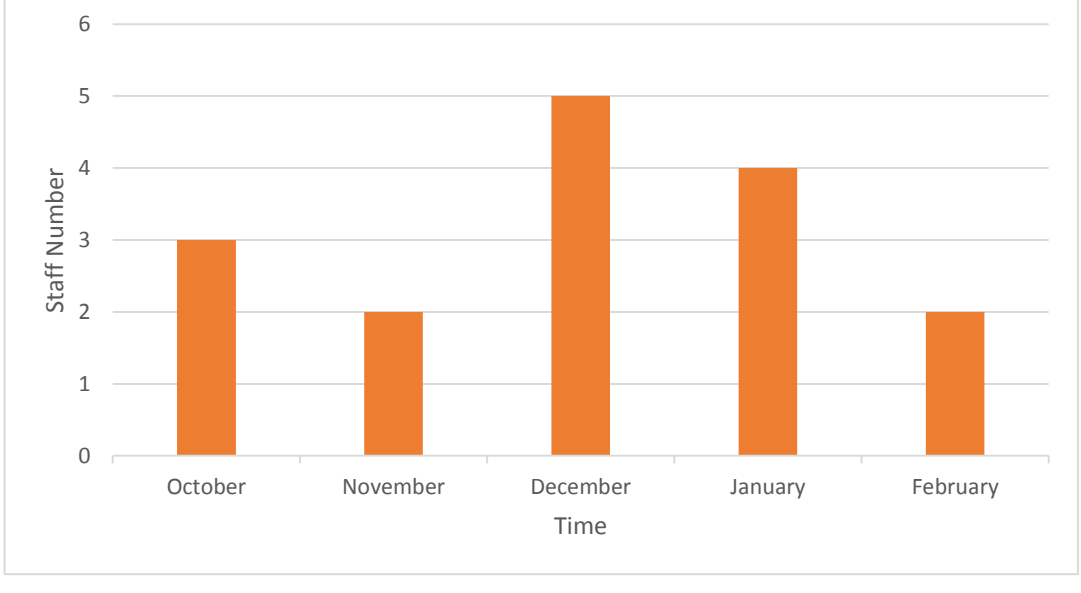
Scheduling:

Work	**Time**
Requirement	3 weeks
Planning	2 weeks
Design & Analysis	5 weeks
Code	10 weeks
Test	3 weeks
Total:	**23 weeks**

Major Breakthrough:

Task	Date
Requirement	15/10/2017
Planning	29/10/2017
Design & Analysis	12/11/2017
Code	17/12/2017
Test	25/02/2018

Staff Planning:



Personal	Responsibility	Backup
SUDIPTA DAS	Project Manager	MD. REAZ UDDIN CHOWDHURY
MD. REAZ UDDIN CHOWDHURY	Team leader	NAZMUS SAKIB SHUBHOM
NAZMUS SAKIB SHUBHOM	Developer	SHAMS ISHTIAQUE
SHAMS ISHTIAQUE	Developer	RASEL AHMED
RASEL AHMED	Tester	NAZMUS SAKIB SHUBHOM

METRCIS:

- **Schedule:** Milestone will be done in MS Project.
- **Expenditures:** Graph of total expenditures over time both projected actual will be done in MS Excel.
- **No. of Requirements:** Graph of number of defects identified per module over time will be done in MS Excel.
- **No. of Objects:** Graph of number of objects identified over time will be done in MS Excel.
- **Coding Progress:** Number of objects coded will be done in MS Excel.
- **Coding Size:** Lines of code measured daily will be done in MS Excel.
- **Test progress:** Unit test causes passed over time will be done in MS Excel.
- **Defect Tracking:** Number of code defects and test Passed over time will be done in MS Excel.
- **Staff Usage:** Graph of person working hours used per month both projected and actual will be done in MS Excel.

Conclusion: To conclude that, the development process will be running as its speed. There is no compromisation with the client's satisfaction. Our developers can adapt new technology easily for best approach for the. Sometimes error may occurs, but we have strong issue tracking tool and experienced personal to solve that problem.