**MEDICAL STORE MANAGEMENT SYSTEM**

**Abstract**

The project is designed for developing the medical store management system whose purpose is to reduce the complexities of record keeping and documentation in the inventory management, payments and list of suppliers. This work discusses the scope, objective and aim of the project along with the analysis of the risks and constraints in the project. The entire project plan is also discussed in this work with the Gantt chart and WBS diagram. The staffing required for completing is project is also mentioned in this work. The estimated cost has also been provided in this report.

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# A. Introduction

In the present time, the medical stores are looking for the services that are accurate and reliable for providing services to the customers and workers. Every store is making efforts to computerize their activities for providing better services to the customers. The medical store management system is the system used for medicine stock inventory in the medical stores. This system enables the manager of the store to record and manage all activities of the medical shop. This system also enables the workforce of the medical store to offer their services in a manner which is more efficient and systematic which also improve of the medical store. this also helps in analyzing the performance of the store. the medical store management software can organize the daily activities in the medical store such as information of tablets, billing, details of stock and others. The medical store management software enables to maintain the details of purchase stock by the store and the details of the selling stock by customer wise (Hull, 2012). This software generates the automated bill for every sale and also generate the reports for the customer detail, sell and stock. The use of this system reduces the time and effort involved in managing inventory of the medical store. It also reduces the hard work involved in using paper for record keeping. The use of this system enables the managers to easily record the details of their suppliers and assess them whenever required. The use of medical store management system improves the efficiency of staff of the store as it provides information about the medicines and its location in the store. The medical store management system can give ease to the medical stores in managing their paper work, payment details and inventory online along with retrieving them.

# B. Aim, objective and scope of the project

1. Aim of the project

The medical store management system is a generic software which can be used in an array of the outlets that is wholesalers and retailers for automating process of the manual record keeping mainly relevant to the cash flows and stocks. The aim of this project is to design and develop the software which provide ease ad improvement from the manual inventory system used by the medical stores.

2. Objective of the project

The objective of this project is to organize the medical store details like stocks, medicines, expense, sales and others. The project s mainly developed at the administrative end and therefore it onlyprovidesaccess to the administrator of the store. The medical store management system is developed as application program for reducing manual work managing medical store, it also helps in keeping track of all the details regarding the expense, stocks and sales. The medical store management system also has following objectives:

* To provide searching facilities on the basis of various factors like stocks and theirs.
* To manage the user details for analyzing sales and expenses.
* To keep track and manage all information.
* To show the description and information of the stocks and others.
* To enhance the efficiency of management in medical store.
* To monitor the information regarding the transaction of the sales.
* To improve the function of edit, add and update the records for the proper resource management.

3. Scope of this project

The medical store management system helps in gathering the perfect management in the details. The collection and storage of data with the help of this project will be sensible, obvious and simple. It also helps in understanding the management of the previous time vividly. It also helps in performing the various functions of medical store. The medical store management system is developed to provide ease in documentation, keeping records, maintaining inventory and payment in the medical store which requires proper record keeping and management (Mahatme,*et al.,* 2012). The project also helps the manager or administrator of the medical store to assess the stored information in the time of need such as for contacting the suppliers. The scope for developing the medical store management system are as follows:

* The detail of medicine which are available in medical store is easily managed and organized by using this system.
* The medical store management system also helps in keeping track of the available stock of medicine and also update them on a regular manner.
* It also helps in analyzing the location of the specific medicine available in the medical store.
* This project also enables to store the detail of suppliers and the stocks supplied by them.
* The medical store management system also provides the facility of generated automatic bills for the customers.
* The database for the customers and employees can also be managed by using this project.
* The designing of medical store management system saves the time which one spent in keeping records and managing payments of the stocks.
* The process of sailing medicine is very crucial as the medical stores must keep eye on the expiry date of every stock and medicine. This project helps the medical stores to keep track on the expiry date of every medicine they have in the store.

After the designing and developing the software of medical store management system, it can be used by the medical stores for conducting, organizing and managing the different activities that are involved in keeping inventory, managing payments and others in the medical stores.

# C. Risks and constraints of the project

## 1. Risk of this project

The risks are defined as uncertainty of the actions, events and outcomes (Hwang, *et al.,* 2017). The risks associated with this project are as follows:

1. The first risk in developing the medical store management system is the impact of using improper hardware interface. The wrong selection of the hardware interface or the use of faulty hardware interface can change the outcome of the software. The hardware interface is the devices or components that are used for interacting between the software and the system which can be desktop or laptop. The hardware interfaces that are used in this project are the RAM, processors ad hard disk. The risk of improper hardware interface arises when the configuration of them is not accurate such as memory size (Thomas and Weiss, 2019). The selection of the accurate interface provides boundaries of the system to the programmers. This risk can be managed or avoided if the programmer determines the specifications of the hardware before using it.

2. the designing of the software of medical store management system is intangible and unique in nature which is inherent in the software when considering the scheduling and estimations in project. This causes risk of the intrinsic schedule flaws which mainly influence performance of program and the estimated outcome from it. The risk of intrinsic schedule flaws in the medical store management system can be managed by involvement of team in the planning and estimating of the software designing.

3. The one more risk associated with this project is the requirement inflation which is related to the project development process. The recognition and estimation of this risk can not be performed at the beginning of this project. In the further stage of the project development, the other features are recognised which were not present at the initial stage and can influence the estimated output and time management of project.

4. the one more risk in designing and developing the software of medical store management system is the specification breakdown which is identified at the starting state of coding and integration. It become perceived at this state that the specifications are not comprehensive which results into the delay in project or add more cost to it. The project manager can avoid this risk by making risky trade decisions.

5. Every software is designed on the basis of the estimated productivity and delay in project or involvement of additional cost can cause risk of poor productivity of the software in comparison to the estimated. The iterations of the project in shore intervals, suitable staffing and appropriate coaching are the ways by which this risk can be avoided.

## 2. Constraints of this project

The constraints for this project are as follows:

1. The constraint regarding the system is the main constraint of this project which is relevant to the compatibility of the program with system. The system constraint is caused due to the processor, hard disk and RAM used in developing the medical store management system.

2. The next constraint is related to the quality of the project. The maintenance of quality in a project is important for achieving the outcome of the software. The purpose of designing the medical store management system is to reduce the time and space involved in record keeping and inventory management in medical stores. The reduction in quality can impact on the performance of software (Heagney, 2016).

3. The scope is the last constraint of this project. The project is need to fulfil its scope as it makes the project cost effective ad maintain the quality of it.

# D. Deliverables in the project

In the project, the deliverables are the outcomes tat are presented or submitted in the process and after the completion of the project. The deliverables in this project are as follows:

1. the first deliverable is the plan of the project. The project plan is the report or document which is submitted at the initial phase of the project. The project plan is prepared after gathering the information and drafting the object of project. The project plan for developing the medical store management system involves scope, objective, time management, risks and cost required in the project.

2. The status report is the next deliverable and submitted between different intervals of time n the entire process of project. The status report includes the information about the growth of process of project within given time line, analysis of the cost and risks of the project (Meredith, *et al.,* 2017). The status report for the medical store management system involves the task is performed in every phase of the project along with the time line and cost incurred in this process. the status report will be submitted after the completion of every stage of project.

3. the documentation is also a deliverable in this project. The documentation is the list of components that are required for designing and developing the medical store management system. All software and hardware requirement are enlisted in the document along with its purpose in the project such as processor, technology and others.

4. the software is the main deliverable as it is the system which is used for managing medical store. At the time of submission, it must be in working condition and provide output as per the scope and objective of the project (Schwalbe, 2015).

5. The project report is the last deliverable of this project in which the information regarding entire process, coding, designing, flow charts and others. The project report is submitted along with the software at the time of submission. It also includes the data flow diagrams and cost incurred in making the project. The software is designed in various layers which has also described in the project report along with the conclusion of this project.

# E. Plan of the project

The plan of developing software for medical store management system is as follows:

1. Starting phase: This is the initial phase of the project and the team mainly gather information regarding developing the medical store management system (Kerzner, 2017). The one more important activity at this stage is the staffing. The members of team are involving ad per the need of skills and knowledge for the project. The project plan is also developed and submitted at this stage. The time duration for this stage is 3 weeks.

2. second stage: It is the prime design phase in which the team performed analysis of the gathered information for developing the software. The designing is also initiated at this stage in which the block level designing is conducted. The different blocks are designed for different functions. While designing bocks the emphasis is on minimizing information flow among blocks. The time duration of this phase is 2 weeks.

3. Third stage: it is the secondary design phase. the main activity of this stage is the designing. Every bock is designed for entire system of the medical store management. This stage also involves the designing of the various structure of database which is compact and smaller. The documentation is also a part of this stage. The time duration of this phase is 3 weeks.

4. Fourth stage: The main activity of this phase involves coding which is a long process. this stage is the most crucial stage of developing medical store management system. The coding of the medical store management system mainly prepared according to the language and technology used for designing the system such as Java. This stage also associated with risks therefore, it is important to iterate it at every level. The time duration of this phase is 5 weeks.

5. Final stage: This stage involves testing and implementation. The generated code is tested at this stage and after getting the favourable outcomes, it will be implemented. The final testing also performed after the implementation (Royce, 2015). The project report is also prepared at this stage. The time duration of this phase is 3 weeks.

* Gantt chart

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1st stage | | 2nd stage | | 3rd stage | | 4th stage | 5th stage | |
| Activities | 1st and 2nd week | 3rd week | 4th week | 5th week | 6th and 7th week | 8th week | 9th to 13th week | 15th and 16th week | 17th week |
| Information collection |  |  |  |  |  |  |  |  |  |
| Project plan |  |  |  |  |  |  |  |  |  |
| Staffing |  |  |  |  |  |  |  |  |  |
| Analysis |  |  |  |  |  |  |  |  |  |
| Block level designing |  |  |  |  |  |  |  |  |  |
| Designing |  |  |  |  |  |  |  |  |  |
| Documentation |  |  |  |  |  |  |  |  |  |
| Coding |  |  |  |  |  |  |  |  |  |
| Testing |  |  |  |  |  |  |  |  |  |
| Implementation |  |  |  |  |  |  |  |  |  |
| Final project report |  |  |  |  |  |  |  |  |  |

* Work break down structure

Figure 1: Work break down structure of medical store management system

# F. Staffing

The staffing for developing the medical store management system is as follows:

|  |  |
| --- | --- |
| Position | Roles and responsibilities |
| Project manager | Project manager is first requirement in terms of human resource for this project. The project manager is responsible for planning, budgeting, staffing and scheduling of the project. The risk assessment and management are also the responsibility of project manager. The review of budget and status report is also prepared by the project manager. |
| IT analyst | The next requirement in staffing is IT analyst who is responsible for designing blocks, developing codes and testing of the software. In the staffing of IT analyst, it is important to review the skills as per the requirement of the project. |
| Hardware and software vendors | These are the individuals who provide the requirements for designing, developing, testing and implementing the software of the medical store management system. The hardware interface, technology and other requirements are arranged by these members in the required quality and allocated funds. |
| Sponsors | The arrangement and management of the funding is the responsibility of the sponsors. They also keep eye on the expense occurred in developing the medical store management system. |

# G. Budget and cost

The estimated cost of this project is 760 pounds

|  |  |
| --- | --- |
| Requirements | Cost in pounds |
| Hardware requirements | 250 pounds |
| Software requirements | 220 pounds |
| Transportation | 110 pounds |
| Stationary | 85 pounds |
| Labour cost | 95 pounds |
| Total | 760 pounds |

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