

# Mini Project Report – Blood bank Management System



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*L&T Technology Services*



## Document History

Ver. Rel. No.	Release Date	Prepared. By	Reviewed By	Approved By	Remarks/Revision Details

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## **Problem Statement**

The objective of this project is to develop blood bank management system, designed to handle the daily transaction of the blood bank and to search details when required. It also helps to register the details of blood donors, blood collection details as well as blood issued reports

## **Problem Description**

The project aims at maintaining the information pertaining to blood donors, different blood groups available in the blood bank and help them manage in a better way, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. When a person wants to donate blood, he has to register by giving information like blood group, contact details etc.

Blood Bank management system can lead to error-free, secure, reliable and fast management systems.

## **Requirements**

### **High Level Requirement**

<b>ID</b>	<b>Description</b>
H01	To manage the operations of the blood bank
H02	To maintain the database of the donors

### **Low Level Requirements**

<b>ID</b>	<b>Description</b>
H01_L01	To add a new donor to the database
H01_L02	To modify the details of an existing donor
H01_L03	To search for a donor
H02_L04	To list the donors in the database
H02_L05	To delete a particular donor

### **Hardware Requirements**

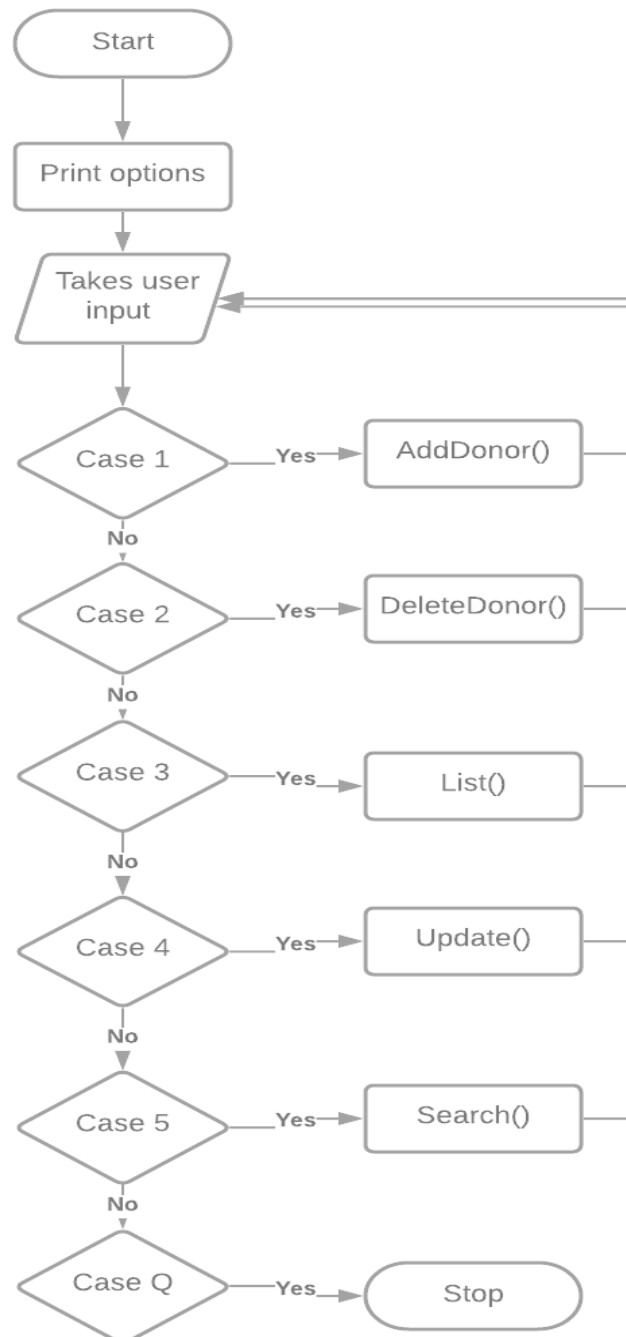
- System: CPU - 2.0 GHZ
- RAM: 1 GB (Minimum)
- Hard Disk: 40 GB

### **Software Requirements**

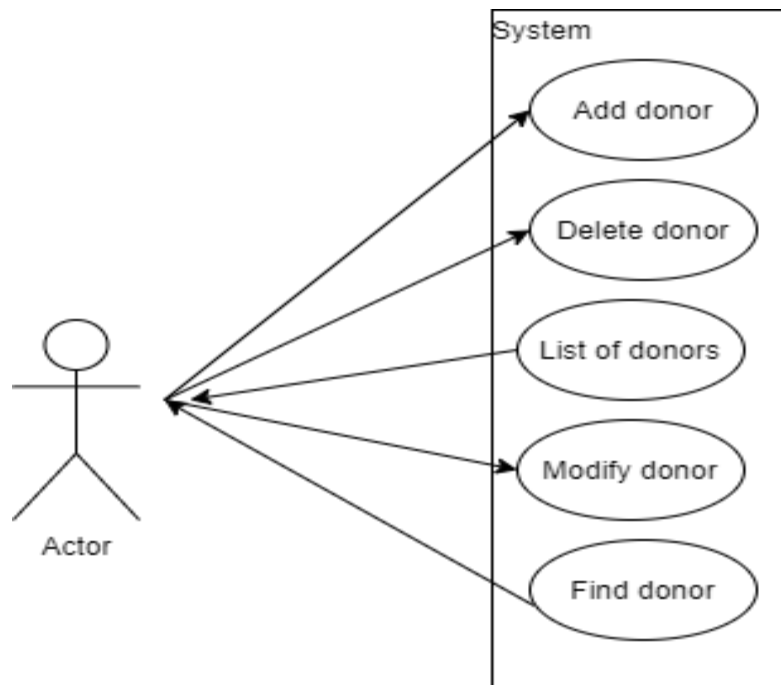
- System: CPU - 2.0 GHZ Operating system – Any operating system
- IDE - CodeBlocks
- Language – C
- Compiler - MINGW

## Design

### Flow Diagram



### User Case Diagram



### Test Plan

#### High Level Test Plan

ID	Description	Pre-Condition	Expected input	Expected Output	Actual output
H01_T01	To test the operations of the menu-driven system	Choice must be one of the listed	1,2,3,4,5,'Q'	Specified choice is selected	

#### Low Level Test Plan

ID	Description	Pre-Condition	Expected input	Expected Output	Actual output
H01_L01_T01	To add a donor	Choice 1 is selected	Detail of donor	Donor detail added	
H01_L01_T02	To delete a donor detail	Choice 2 is selected	Acc no. of the donor	Donor detail deleted	
H01_L02_T03	To list all donor detail	Choice 3 is selected	No input required	List of all the donors	
H01_L02_T04	To modify a donor detail	Choice 4 is selected	Detail to be modified	Modify the donor detail	

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H01_L02_T05	To find a donor by blood group	Choice 5 is selected	Blood group required	Matching donor detail	
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### Quality Objectives

- Ensure the Application under Test conforms to functional and non-functional requirements.
- Bugs/issues are identified and fixed before they go live.

### Test Criteria

#### Suspension Criteria

If more than 50% of test cases are failed then the testing is suspended until all fail cases are fixed

#### Exit Criteria

100% Test coverage.

All manual test cases are executed.

All open bugs are fixed or will be fixed in the next release.

### Test Environment

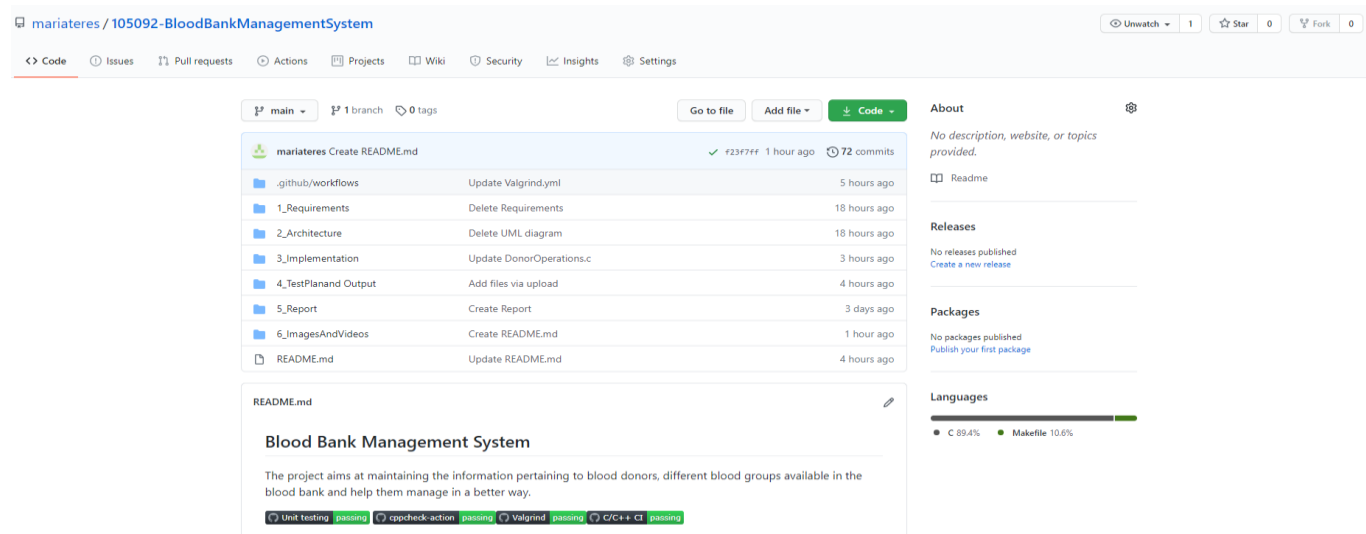
The test cases are executed in Code Blocks.



## Github Link

<https://github.com/mariateres/105092-BloodBankManagementSystem>

## Repository



mariateres / 105092-BloodBankManagementSystem

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mariateres Create README.md ✓ f23f7ff 1 hour ago 72 commits

.github/workflows	Update Valgrind.yml	5 hours ago
1_Requirements	Delete Requirements	18 hours ago
2_Architecture	Delete UML diagram	18 hours ago
3_Implementation	Update DonorOperations.c	3 hours ago
4_TestPlanand Output	Add files via upload	4 hours ago
5_Report	Create Report	3 days ago
6_ImagesAndVideos	Create README.md	1 hour ago
README.md	Update README.md	4 hours ago

README.md

### Blood Bank Management System

The project aims at maintaining the information pertaining to blood donors, different blood groups available in the blood bank and help them manage in a better way.

Unit testing passing cppcheck-action passing Valgrind passing C/C++ CI passing

About

No description, website, or topics provided.

Readme

Releases

No releases published  
[Create a new release](#)

Packages

No packages published  
[Publish your first package](#)

Languages

C 89.4% Makefile 10.6%

## **Conclusion**

The Blood Bank Management System is very useful for handling the records of all donors in the blood bank. No formal knowledge is needed for the user to use this system. It also provides error messages while entering invalid data. It is very user-friendly. Blood Bank Management System, as described above, can lead to a secure, reliable, and fast management system.