

# Mini Project Report – Blood bank Management System



GLOBAL  
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GENSIS



*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**

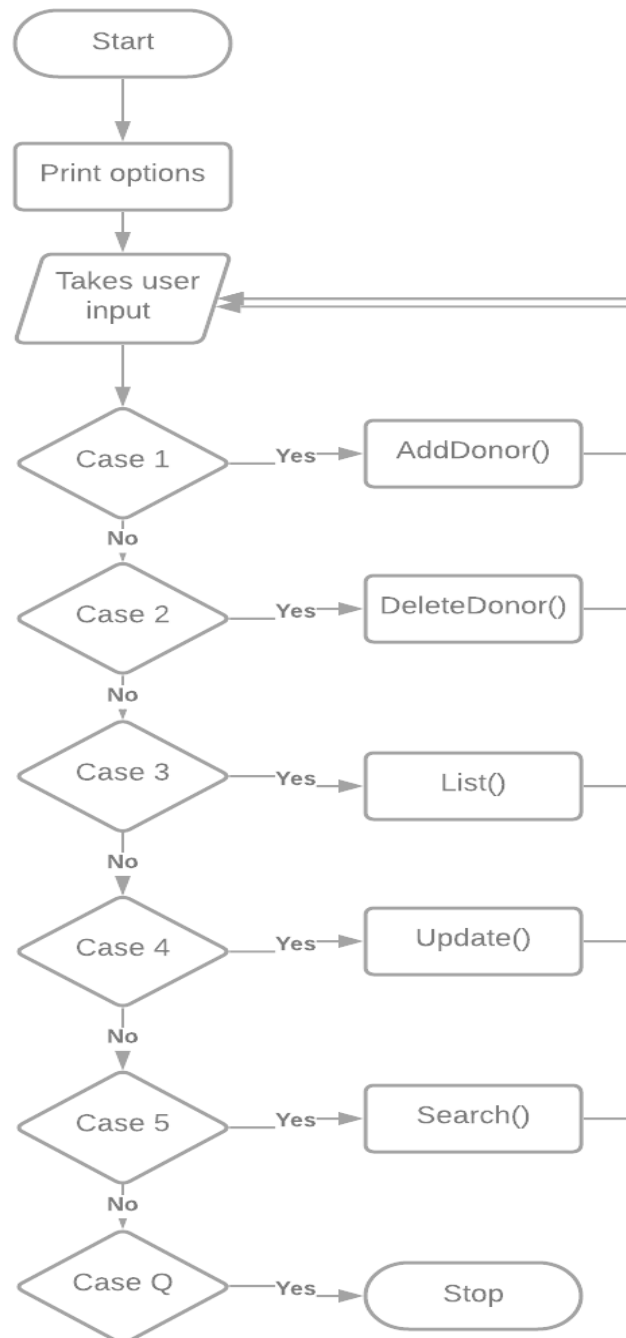
<b>ID</b>	<b>Description</b>
H01	To manage the operations of the blood bank
H02	To maintain the database of the donors

### **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

## DESIGN

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

### Github Link

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

## Repository

mariateres / 105092-BloodBankManagementSystem

Unwatch 1 Star 0 Fork 0

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags

Go to file Add file Code

File	Commit	Time
mariateres Create README.md	f23f7ff	1 hour ago
.github/workflows		5 hours ago
1_Requirements		18 hours ago
2_Architecture		18 hours ago
3_Implementation		3 hours ago
4_TestPlanand Output		4 hours ago
5_Report		3 days ago
6_ImagesAndVideos		1 hour ago
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%

## Code Commits

mariateres / 105092-BloodBankManagementSystem

Unwatch 1 Star 0 Fork 0

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Workflows

New workflow

All workflows


Filter workflows

107 results

Event	Status	Branch	Actor
✓ Create README.md	cppcheck-action #43: Commit f23f7ff pushed by mariateres	main	1 hour ago
✓ Create README.md	C/C++ #21: Commit f23f7ff pushed by mariateres	main	1 hour ago
✓ Create README.md	Valgrind #20: Commit f23f7ff pushed by mariateres	main	1 hour ago
✓ Create README.md	Unit testing #23: Commit f23f7ff pushed by mariateres	main	1 hour ago
✓ Add files via upload	cppcheck-action #42: Commit 49c58f5 pushed by mariateres	main	2 hours ago
✓ Add files via upload		main	2 hours ago

✓ Add files via upload C/C++ CI #20: Commit 49c68f5 pushed by mariateres	main	2 hours ago 21s	...
✓ Add files via upload Unit testing #22: Commit 49c68f5 pushed by mariateres	main	2 hours ago 50s	...
✓ Add files via upload Valgrind #19: Commit 49c68f5 pushed by mariateres	main	2 hours ago 58s	...
✓ Delete readme cppcheck-action #41: Commit 43aa159 pushed by mariateres	main	2 hours ago 53s	...
✓ Delete readme C/C++ CI #19: Commit 43aa159 pushed by mariateres	main	2 hours ago 21s	...
✓ Delete readme Valgrind #18: Commit 43aa159 pushed by mariateres	main	2 hours ago 41s	...
✓ Delete readme Unit testing #21: Commit 43aa159 pushed by mariateres	main	2 hours ago 29s	...
✓ Add files via upload Unit testing #20: Commit d9033bf pushed by mariateres	main	2 hours ago 59s	...
✓ Add files via upload Valgrind #17: Commit d9033bf pushed by mariateres	main	2 hours ago 38s	...
✓ Add files via upload cppcheck-action #40: Commit d9033bf pushed by mariateres	main	2 hours ago 29s	...
✓ Add files via upload	main	2 hours ago	...

## Build

 mariateres / 105092-BloodBankManagementSystem

Unwatch 1

Star 0

Fork 0

<> Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

Settings

✓ Create Makefile

main 276e5f9

Re-run jobs

> Valgrind  
orc: push

> cppcheck-action  
orc: push

> C/C++ CI  
orc: push

> build

> Unit testing  
orc: push

build  
succeeded 1 minute ago in 5s

Search logs

> Set up job 3s

> Run actions/checkout@v2 1s

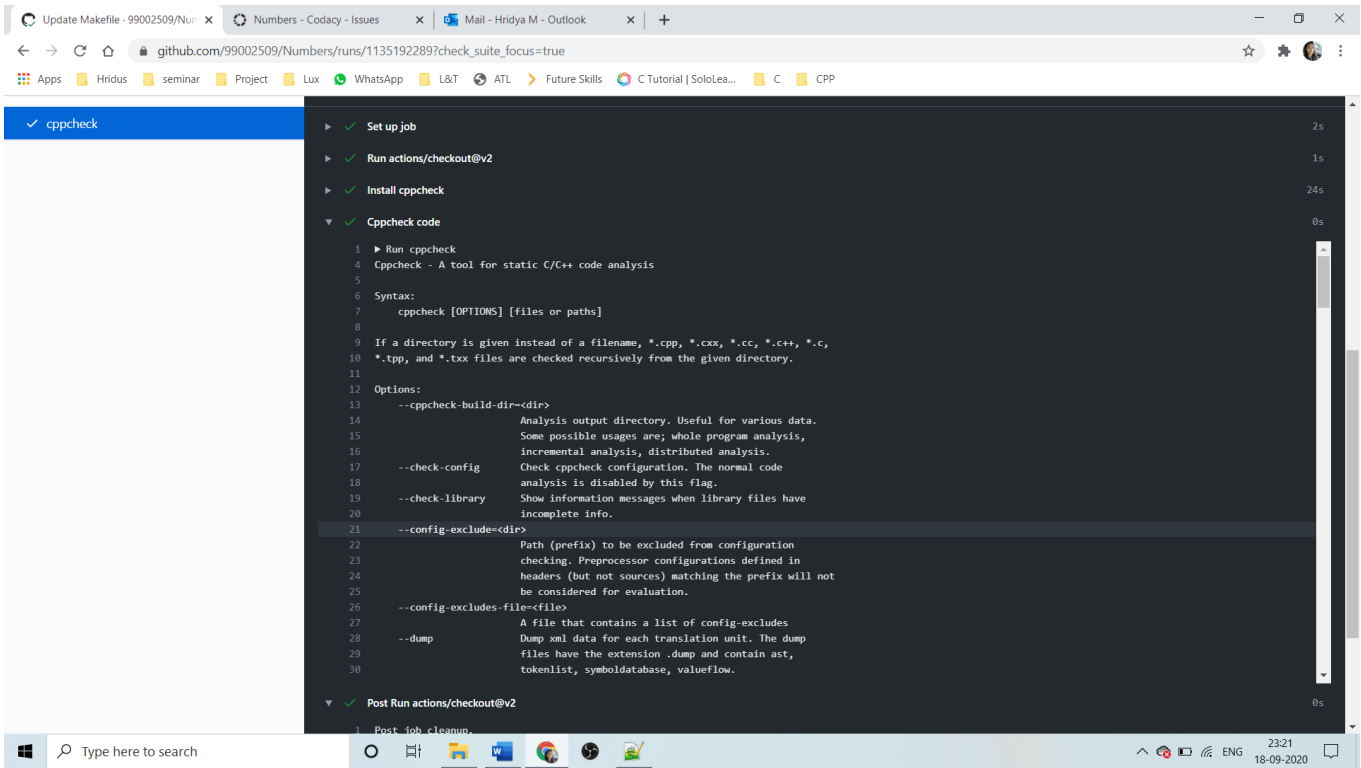
> make all 0s

> Post Run actions/checkout@v2 1s

> Complete job 0s



## CPP check



The screenshot shows a GitHub Actions workflow run for the 'cppcheck' job. The workflow is titled 'cppcheck' and is part of a repository named 'Numbers'. The workflow steps are as follows:

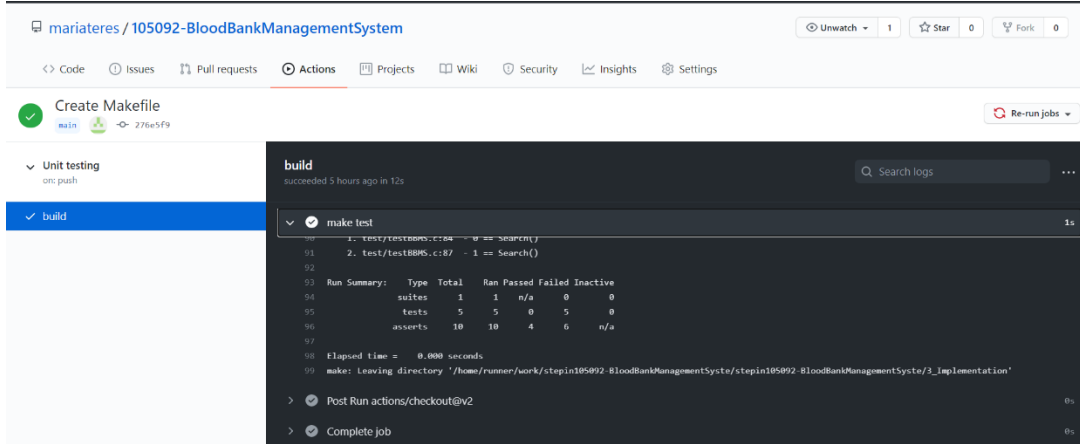
- Set up job** (2s)
- Run actions/checkout@v2** (1s)
- Install cppcheck** (24s)
- Cppcheck code** (0s)

The 'Cppcheck code' step contains the following code:

```
1 Run cppcheck
4 Cppcheck - A tool for static C/C++ code analysis
5
6 Syntax:
7   cppcheck [OPTIONS] [files or paths]
8
9 If a directory is given instead of a filename, *.cpp, *.c, *.cc, *.c++, *.c,
10 *.tpp, and *.txx files are checked recursively from the given directory.
11
12 Options:
13   --cppcheck-build-dir<dir>
14       Analysis output directory. Useful for various data.
15       Some possible usages are; whole program analysis,
16       incremental analysis, distributed analysis.
17   --check-config
18       Check cppcheck configuration. The normal code
19       analysis is disabled by this flag.
20   --check-library
21       Show information messages when library files have
22       incomplete info.
23   --config-exclude<dir>
24       Path (prefix) to be excluded from configuration
25       checking. Preprocessor configurations defined in
26       headers (but not sources) matching the prefix will not
27       be considered for evaluation.
28   --config-excludes-file<file>
29       A file that contains a list of config-excludes
30       Dump xml data for each translation unit. The dump
31       files have the extension .dump and contain ast,
32       tokenlist, symboldatabase, valueflow.
```

The workflow also includes a 'Post Run actions/checkout@v2' step and a 'Post job cleanup' step.

## Unit testing



The screenshot displays the GitHub Actions interface for the repository `mariateres / 105092-BloodBankManagementSystem`. The workflow `Create Makefile` is shown, with the `build` job selected. The job status is `build` (succeeded 5 hours ago in 12s). The workflow steps include:

- `Unit testing` (on: push)
- `build` (selected)

The `build` job log shows the execution of `make test`, which includes the following test results:

```
1. test/testmain.cpp:0 == Search()
2. test/testBBMS.cpp:87 - 1 == Search()

Run Summary:
Type      Total    Run Passed Failed Inactive
suites     1         1    n/a     0     0
tests      5         5     0     5     0
asserts    10        10     4     6    n/a

Elapsed time = 0.000 seconds
make: Leaving directory '/home/runner/work/step105092-BloodBankManagementSystem/step105092-BloodBankManagementSystem/3_Implementation'
```

The job concludes with the following steps:

- `Post Run actions/checkout@v2`
- `Complete job`

