



**SARVAJANIK UNIVERSITY**  
**Sarvajani College of Engineering and Technology**  
**Masters of Computer Applications**



**MCA Semester I**

**Subject Name:** Software Project-1

**Subject Code:** MTCA16106

**Type of course:** Project

**Prerequisite (if any):** Programming knowledge of C / C++ Language

**List of Courses where this course will be prerequisite:** DirectX

**Rationale:** Knowledge of this course will be used to develop any online web applications.

**Teaching and Examination Scheme:**

TEACHING SCHEME				Theory Marks			Practical Marks		Total
L	T	P	C	TEE	CA1	CA2	TEP	CA3	
0	0	2	1	0	0	0	60	40	100

**CA1:** Continuous Assessment (assignments/projects/open book tests/closed book tests) **CA2:** Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems **TEE:** Term End Examination **TEP:** Term End Practical Exam (Performance and viva on practical skills learned in course) **CA3:** Regular submission of Lab work/Quality of work submitted/Active participation in lab sessions/viva on practical skills learned in course

**Guidelines:**

- It is recommended that the team should be of 2-3 students.
- The project should be free from plagiarism of any kind.
- Project must have proper documentation.
- Student can develop C/C++ project either in Windows / Linux Platform.
- Coding standards should be followed meticulously. At the minimum, the code should be self-documented, modular, and should use the meaningful naming convention.
- Student may be asked to write the code related to the project during examination.



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Project size in terms of Lines of Code (LOC) should be 1,000 lines or more. In case of (extensive) recursion used in medium to high complexity problem, this limit on LOC may be relaxed.

**Guidelines for Documentation:**

- Documentation of the project should include at least description of the problem, algorithm, Source code and screenshots.
- **Format:** The student has to submit hard copy of the Project report in below specified format:
  - Print out should be taken on both the side of page with single line spacing.
  - Use Times New Roman of size 11 for normal text.
- **A typical Table of content will be as follows.**

Table of Content	
1	Abstract
2	Objective
3	Source Code
4	Screenshots
5	Test cases
6	Acknowledgements
7	References



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**Reference Books:**

Sr. no.	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	“Programming in C”,	Ashok M. Kamthane	Pearson	Pearson (2006)	5 <sup>th</sup> Edition
2	“Programming in C”,	Reema Thareja.	Oxford University Press	2015	2nd Edition,
3	Programming with ANSI C++	Bhushan Trivedi	Oxford University Press	April,2010	2 <sup>nd</sup> Edition
4	Object Oriented programming in C++ by	Robert Lafore	Pearson Education	Pearson	4 <sup>th</sup> Edition
5	The C++ Programming Language	BJARNE STROUSTRUP	Wesley ISBN 978-0321563842.	May 2013.	4 <sup>th</sup> Edition

**Course Outcomes:**

Sr. No.	CO Statement After learning this subject, students will be able to	Marks % weightage
CO-1	Demonstrate a sound technical knowledge of their selected project topic	20%
CO-2	Identify and formulate the problem definition	20%
CO-3	Analyse the problem definition and develop the project using appropriate programming	20%
CO-4	Compare and test the several existing solutions.	20%
CO-5	Demonstrate an ability to work in teams.	10%
CO-6	To report and present the findings of the study conducted in the preferred domain.	10%

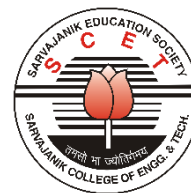


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**Mapping with POs:**

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3
<b>CO-1</b>	1	3	3	3	3	0	1	2	1	2	3	3			
<b>CO-2</b>	1	3	3	3	3	1	1	2	1	2	3	3			
<b>CO-3</b>	0	3	3	3	3	1	1	2	2	2	3	3			
<b>CO-4</b>	2	3	3	3	3	0	1	2	2	2	3	3			
<b>CO-5</b>	0	1	3	3	3	1	1	2	3	2	3	3			
<b>CO-6</b>	1	3	3	3	3	0	1	2	2	2	3	3			
<b>Rationale*</b>															

**Rationale\*:** Explaining why it is matching this particular program outcome

1.