

**COMPETITIVE  
PROGRAMMING  
CLUB**

**CUSTOM LIBRARY AND  
HEADER FILE MAKING IN C**

**INFORMATION AND  
COMMUNICATION  
TECHNOLOGY**

**FACULTY OF TECHNOLOGY  
MARWADI UNIVERSITY, RAJKOT**

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## 1. Introduction:

The event was conducted on 16<sup>th</sup> Jan 2025. This event was conducted for 2<sup>nd</sup> semester degree students to introduce them with custom library and header file creation in C. The venue was MA102.

## 2. Event Overview:

- a. A brief introduction to libraries and header files was presented.
- b. Talked about the need and benefits of header files and libraries in C.
- c. Explained the difference between a library and a header file.
- d. Explained how to make a custom header file with the student's choice of useful functions in C.
- e. Showed the process to create a custom library and a header file.
- f. Gave some task functions to do on their own.
- g. Solved doubts.

## 3. PO Mapping and Justification:

- **PO1 (Engineering Knowledge)**  
**Justification:** Participants apply fundamental C programming concepts, including functions, structures, and modular programming, to create efficient and reusable custom libraries and header files.
- **PO2 (Problem Analysis)**  
**Justification:** The activity challenges students to analyze software requirements, identify reusable components, and structure code efficiently to solve real-world programming problems.
- **PO3 (Design/Development of Solutions)**  
**Justification:** Students design and implement modular, reusable, and well-structured C programs, ensuring code reusability and maintainability through custom libraries and headers.
- **PO6 (The Engineer and Society)**  
**Justification:** By learning to develop well-structured and efficient libraries, students contribute to best coding practices that enhance software quality, benefiting industrial and societal applications.
- **PO12 (Life-long Learning)**  
**Justification:** The activity fosters a deep understanding of modular programming and encourages continuous learning, enabling students to adapt to evolving software development techniques.

## 4. PSO Mapping and Justification:

- **Mapped with PSO1**

**Justification:** The activity equips participants with the ability to design optimized and reusable software components, essential for domains like software development, embedded systems, IoT, and VLSI design.

- **Mapped with PSO2**

**Justification:** By implementing structured programming concepts, students develop essential skills for areas such as cloud computing, DevOps, security, machine learning, artificial intelligence, and big data.

## 5. Attendance and Participants:

The event had a total of **49 students** in attendance, all of whom were participants. These participants consisted exclusively of 2nd-semester degree students. The enthusiastic engagement and active participation of these students contributed to the success of the event.

Sr. No.	Enrollment Number	Student Name	Sign
✓ 1	92400133034	Vineesha Madmani	
✓ 2	92400133043	Bhawanth Bhambhani	
✓ 3	92400133125	Man Bhalodiya	
✓ 4	92400133131	Fanhan Kaladiya	
✓ 5	92400133079	Yvg Makwana	
✓ 6	92400133020	Balon Ramawat	
✓ 7	92400133104	Avani Kavathiya	
8	92400133169	Rishi Sampat	
9	92400133054	Grodalka Dharmik	
10	92400133058	Hum Dave	
11	92400133108	Karish Sandager	
12	92400133191	Taksh Amrutiyu	
13	92400133109	Prince Vaghasiya	
14	92400133158	Dhumi Desai	
15	92400133156	DIYA KALARIA	
16	92400133089	Darshit Kachar	
✓ 17	92400133096	Prem Joshi	
✓ 18	92400133081	Manav Chodai	
✓ 19	92400133035	Rajdeep Jodeja	
✓ 20	92400133088	mit Chodwadiya	
✓ 21	92400133147	Veeranki Deva Harsha	
✓ 22	92400133082	Palukuri Venkata Shreyan	
✓ 23	92400133128	P. Abhinav Shasidhar Reddy	
✓ 24	92400133092	Bommireni Jothwanth	
✓ 25	92400133152	MDRE Harish	
✓ 26	92400133069	Shashi Kumar Gouri	
✓ 27	92400133118	Shiva Poasad	
✓ 28	92400133181	M. Lakshminiraj	

Sr. No.	Enrollment Number	Student Name	Sign
✓ 29	92400133167	M <sup>Om</sup> Vishal / Reddy	Vishal
✓ 30	92400133171	Surethan Reddy Sandhi	Surethan
✓ 31	92400133046	Dinesh Musarichetti	Holiness
✓ 32	92400133174	Abhinav Choudhari	Ch. Abg
✓ 33	92400133027	Daarshil Sapara	Daarshil..
✓ 34	92400133138	Ayush Narayan Subudni	Ayush
✓ 35	92400133168	Nishith Rajwar	nishith Rajwar
36	92400133037	Heer Mehta	Heer Mehta
✓ 37	92400133113	Vishant Chhenigera	Vish
✓ 38	92400133157	Om DITOLARIYA	Om
✓ 39	92400133121	Priyankaashini .M	P
✓ 40	92400133163	N. Sai Mangna	N. Sai Mangna
41	92400133059	Pinal Gadhiya	Pinal
42	92400133060	Shreya Vachhani	Shreya
43	92400133184	chandni Patel	chandni
44	92400133120	Iha Bhogayata	Iha
45	92400133060	SHUBH VACHANI	Shubh
46	92400133106	Dhanir Jayan	Dhanir
		EK2	
01	92400133073	Devarish Bhatt	Devarish
02	92400133189	A <sup>Om</sup> Lathigara	Lathigara
03	92400133130	Mohit Patra	Mohit



## 6. Achievements and Outcomes:

- a. **Grip over functions in C:** Participants gained a solid grip over functional programming in C that will be helpful in real-life projects.
- b. **Gained knowledge about Header files and libraries:** Attendees got a good insight into libraries and header files.
- c. **Seamless creation of custom header files:** Achieving a good grip over the creation of custom header files with the functions of their choice that can be useful to attendees in future projects.

## 7. Challenges:

**MINGW setup challenge:** The major challenge we experienced in the event was many students were not have the Mingw c compiler setup in their systems so they are unable to perform the tasks. However, our team of volunteers helped each and every participant with the C compiler set up setup.

## 8. Feedback and Evaluation:

The feedback and evaluations received for the Custom Library and header file sessions are positive, with students demonstrating improved knowledge, enthusiasm for creating their very first header file, and appreciation for supportive instructors. Overall, the sessions are perceived as useful, interactive, and interesting, with positive feedback on a well-crafted presentation and support for the speaker.

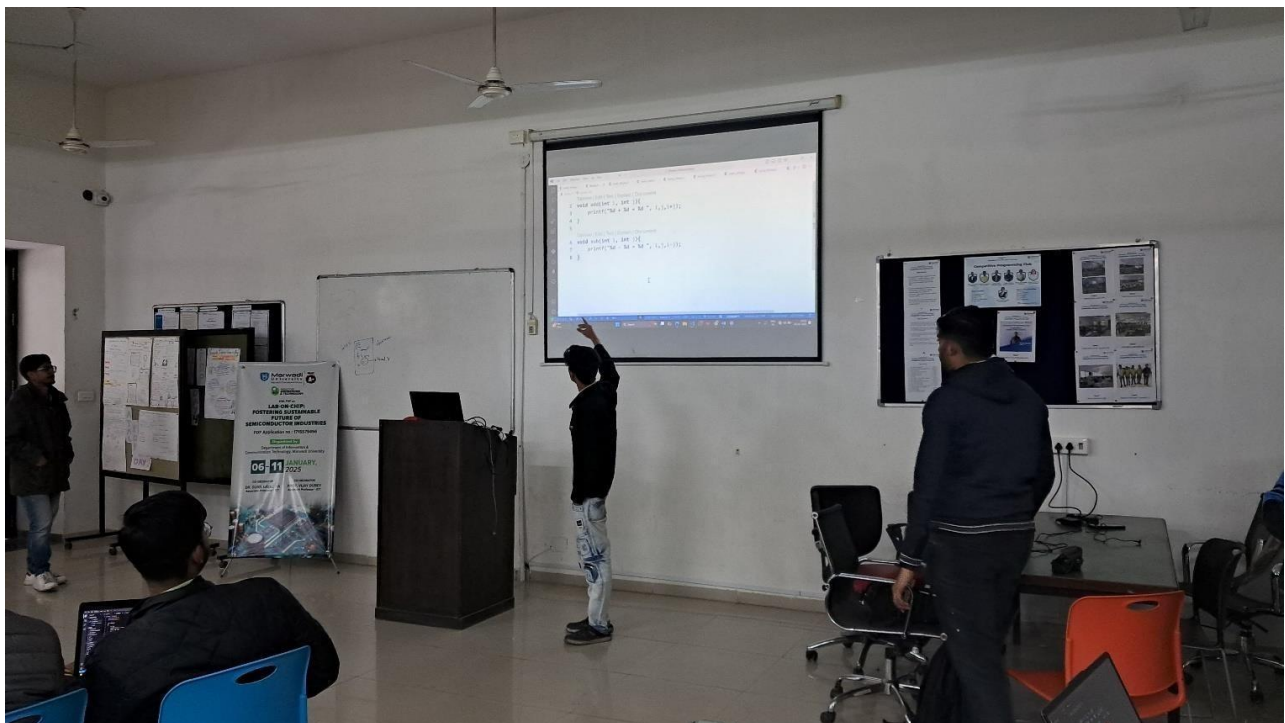
## 9. Conclusion:

In conclusion, the event conducted on 16<sup>th</sup> Jan 2025, successfully covered Custom library and header file-making basics despite challenges posed by some attendees not having the setup for C language. Participants exhibited resilience in mastering Functional programming skills, emphasizing customisation, project efficiency, and custom header file creation. The hands-on experience with Header file making, despite challenges, added practical value to their learning. The event not only achieved its objectives but also fostered a sense of customisability and adaptability among attendees, setting a positive tone for their future endeavors.

## 10. Attachments:











Club Name: CP Date: 16-1-25

Event Name: Creating Custom Header Files in C

How would you rate the overall event experience?(Select one)

- ☐ Poor
- ☐ Average
- ☐ Good
- ☒ Very Good
- ☐ Excellent

How satisfied were you with the quality of the speakers/presenters?(Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event?(Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level?(Select one)

- ☐ Extremely Relevant
- ☒ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

I loved the matter of the event and for sure  
looking forward to see more of it, presentation  
could be better and flow could be more  
smoother.

Club Name: Competitive programming Date: 16-01-2025

Event Name: Creating Custom libraries and reader file

How would you rate the overall event experience?(Select one)

- ☐ Poor
- ☐ Average
- ☐ Good
- ☒ Very Good
- ☐ Excellent

How satisfied were you with the quality of the speakers/presenters?(Select one)

- ☐ Highly Satisfied
- ☒ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event?(Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level?(Select one)

- ☒ Extremely Relevant
- ☐ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

This was something related to my academia  
and was something new.



Club Name: CP

Date: 16-01-25

Event Name: Creating custom libraries & header file

How would you rate the overall event experience? (Select one)

- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☒ Excellent

How satisfied were you with the quality of the speakers/presenters? (Select one)

- ☒ Highly Satisfied
- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☒ Highly dissatisfied

How satisfied were you with the flow of the event? (Select one)

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- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level? (Select one)

- ☒ Extremely Relevant
- ☐ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

Event was very insightful.



Club Name: cp club.

Date: 16-01-25

Event Name: creating custom libraries and Header file in C

How would you rate the overall event experience? (Select one)

- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☒ Excellent

How satisfied were you with the quality of the speakers/presenters? (Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event? (Select one)

- ☐ Highly Satisfied
- ☒ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level? (Select one)

- ☐ Extremely Relevant
- ☒ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

The event was excellent with systematic  
flow.

Club Name: CP Date: 16-1-25

Event Name: CREATING CUSTOM LIBRARIES &

How would you rate the overall event experience? (Select one)

- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☒ Excellent

Header Files  
in C

How satisfied were you with the quality of the speakers/presenters? (Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event? (Select one)

- ☐ Highly Satisfied
- ☒ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level? (Select one)

- ☒ Extremely Relevant
- ☐ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

The topics were taught nicely. One suggestion  
is regarding the range I think topics should  
be covered in greater depth.



Club Name: Competitive programming

Date: 16/01/2025

Event Name: creating custom libraries and header file.

How would you rate the overall event experience?(Select one)

- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☒ Excellent

How satisfied were you with the quality of the speakers/presenters?(Select one)

- ☒ Highly Satisfied
- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event?(Select one)

- ☒ Highly Satisfied
- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level?(Select one)

- ☒ Extremely Relevant
- ☐ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

It was a really interesting event and the  
explanation was really good.

Club Name: Computative Programming Date: 16/01/2023

Event Name: Creative custom libraries and Header file

How would you rate the overall event experience?(Select one)

- ☐ Poor
- ☒ Average
- ☐ Good
- ☐ Very Good
- ☐ Excellent

How satisfied were you with the quality of the speakers/presenters?(Select one)

- ☐ Highly Satisfied
- ☒ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event?(Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level?(Select one)

- ☐ Extremely Relevant
- ☒ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

It was a nice and informative event. In this  
event I was able to know about How to the Header  
file and library works.



Club Name: Competitive Programming Date: 16-01-25

Event Name: Creating custom file

How would you rate the overall event experience? (Select one)

- ☐ Poor
- ☐ Average
- ☒ Good
- ☐ Very Good
- ☐ Excellent

How satisfied were you with the quality of the speakers/presenters? (Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event? (Select one)

- ☐ Highly Satisfied
- ☒ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level? (Select one)

- ☐ Extremely Relevant
- ☒ Slightly Relevant
- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

The event was very exhilarating.  
I was very content with the event's

Club Name: Competitive Programming

Date: 16/01/2025

Event Name: Creating custom Libraries and header file.

How would you rate the overall event experience?(Select one)

- ☐ Poor
- ☒ Average
- ☐ Good
- ☐ Very Good
- ☐ Excellent

How satisfied were you with the quality of the speakers/presenters?(Select one)

- ☐ Highly Satisfied
- ☒ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

How satisfied were you with the flow of the event?(Select one)

- ☐ Highly Satisfied
- ☐ Satisfied
- ☒ Neutral
- ☐ Dissatisfied
- ☐ Highly dissatisfied

Was the content relevant to your technical interests and knowledge level?(Select one)

- ☐ Extremely Relevant
- ☐ Slightly Relevant
- ☒ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

The session was quite interesting & got to  
learn something new.