



COMPETITIVE PROGRAMMING CLUB

Problem Solving Using C++

**INFORMATION AND
COMMUNICATION TECHNOLOGY**

**FACULTY OF TECHNOLOGY
MARWADI UNIVERSITY, RAJKOT**



1. Introduction:

The event "**Problem Solving Using C++**", held at the Marwadi University - ICT Department The event held on 27th July 2024, was organized to strengthen participants' understanding of C++ basics and enhance problem-solving skills using platforms like LeetCode and HackerRank. It aimed to address programming proficiency gaps, fostering logical thinking and coding acumen.

2. Event Overview:

The event took place in multiple labs MA115 and MA112 accommodating 60 participants. Through a structured approach, participants engaged with foundational C++ concepts, progressing to tackling problems on LeetCode and HackerRank. The emphasis was on practical learning and applying theoretical knowledge to real-world scenarios.

- 1) Introduction to CP Club.
- 2) Explaining foundational C++ concepts.
- 3) Hands on Solving problems on LeetCode and Hackerrank.
- 4) Relating it with real life scenarios.
- 5) Session conclusion

3. PO mapping and Justification:

- **PO1(Engineering Knowledge)**
 - Justification: Participants apply fundamental programming concepts, data structures, and algorithms to solve complex computational problems using C++.
- **PO2 (Problem Analysis)**
 - Justification: The event challenges students to analyze given problems, identify constraints, and formulate efficient logic for optimal solutions.
- **PO3 (Design/Development of Solutions)**
 - Justification: Competitors design and implement well-structured, optimized C++ programs that address real-world or competitive programming scenarios.
- **PO9 (Individual and Team Work)**
 - **Justification:** The event may include both individual coding tasks and team-based problem-solving rounds, fostering teamwork, leadership, and collaboration.
- **PO10 (Communication)**
 - Justification: Participants must articulate their approach, explain logic, and document their solutions effectively, enhancing their technical communication skills.

- **PO12 (Life-long Learning)**

- Justification: Exposure to diverse problem statements and coding techniques encourages participants to continuously learn, adapt, and improve their programming skills.

4. PSO mapping and Justification:

- **Mapped with PSO1:**

- Justification: The event enables participants to develop problem-solving abilities relevant to industries such as software development, embedded systems, IoT, and communication technologies.

- **Mapped with PSO2:**

- Justification: By solving algorithmic challenges in C++, students gain expertise applicable to domains like cloud computing, DevOps, AI, machine learning, cybersecurity, and big data analytics.

5. Attendance and Participants:

The event attracted 60 participants, showcasing significant interest in competitive programming and C++ basics. Participants hailed from diverse backgrounds, reflecting the growing enthusiasm for coding and problem-solving in educational communities.

GR No.	Erolment No	Name
120691	92301733004	DUCLAS ARGENTINA FRANCISCO MATSINHE
120914	92301733022	OM CHANDULAL MAKADIYA
123043	92301733064	KATHAN KAMLESH KANSAGARA
120736	92301733013	MIT JAYESH SOLANKI
119459	92200133025	UMANG KETANBHAI HIRANI
119486	92200133026	VIVEK MANISHBHAI CHAVDA
122731	92301733054	NIKHILKUMAR JAYESHBHAI BHANDERI
120692	92301733003	ALBEIJA BERNADETE LOLA LAISSANE
123464	92301733072	CHAN EVAN WESLEY
118613	92200133014	HENCY HITESHBHAI DEPANI
123042	92301733063	ANGEL OZA
120002	92200133046	RACHEL LEILA AKOL MUORWEL
122640	92301733051	TANVI BATUKBHAI KAKADIYA
120720	92301733011	HIRCEL CIRZETH VIRGILIO ZACARIAS
122580	92301733050	JYOTINDRASINH PARMAR
123095	92301733067	MANAV DHARMESH MANDALIA
122352	92301733065	LORDWIN JOSEPH
122247	92301733039	DISHANT SHAILESHBHAI RUPAPARA

122428	92301733045	HITARTHI MANOJBHAI PANSURIYA
122354	92301733042	ANSH VIPUL RAYTHATHA
121853	92301733033	HAPPY KALPESHBHAI LIMBASIYA
123134	92301733058	DEVENDRASINH DOLATSINH JADEJA
122265	92301733040	MAYUR DILIPBHAI KHANDLA
121771	92301733029	BHARGAV MAHESHBHAI LIMBANI
122416	92301733044	JENISH PINTUBHAI KHAKHKHAR
122642	92301733052	SAURABH K BHUPTANI
122820	92301733057	PAYAL MAKWANA
122710	92301733053	ROHAN PRAVINBHAI MAKWANA
120891	92301733021	YASH JAYESHBHAI VEKARIYA
122405	92301733043	BHAVIN PANKAJBHAI MUCHHALA
121782	92301733031	DHYANA KOTHARI
123073	92301733066	KAVYA CHIRAGBHAI THAKAR
116118	92200133002	HARSH MANISHBHAI DOSHI
120717	92301733012	ADELAIDE FELICIANO LAMPIAO MIGUEL
118299	92200133011	ARYAN JAGDISHBHAI MAHIDA
121063	92301733025	MIHIR MALIKALI MITHANI
119732	92200133043	PRIYANSHI HIREN MADANI
121144	92301733026	GEORGE THOMAS
121249	92301733036	NIKI MAJITHIYA
117715	92200133008	ISHIKA KIRIT SHETH
120945	92301733024	ISHA DEVENDRABHAI SAVALIYA
122473	92301733047	RAJ TULSHIBHAI TALA
120713	92301733008	YURICA SILVANA DE ASSIS CAETANO
122806	92301733068	EPARI SAI PRASHANTH
119699	92200133037	NANDINI JAYESH LASHKARI
120680	92301733002	DINESH KAMLESH KEVALRAMANI
120865	92301733020	ARMANDO NELVIO MOIANE
123014	92301733060	KRUSHANG KAMLESHBHAI SAVALIYA
123160	92301733069	HARSHIL MANSUKHBHAI DOMADIYA
123024	92301733061	KIRTI ANILBHAI SHINGALA
120815	92301733016	ASHUTOSH KUMAR SINGH
121725	92301733028	DISHA PARESHBHAI VADOLIYA
121772	92301733030	MEET VIJAYBHAI LIMBANI
120704	92301733006	ZEENAT ABDULCADRE ABUCHIR DOSSO
119144	92200133016	MALHARKRISHNA SAHILKRISHNA SHAH
120706	92301733007	DENISA LIDIA DIONISIO RECAMA
119394	92200133021	VIDYA BHARTI SINHA
122195	92301733038	DIVY SHANTILAL DEDANIYA
122779	92301733056	BUGGITTINA SHIVA KUMAR
116617	92200133003	PRASHANT GOPALBHAI SARVAIYA
120824	92301733017	HARSH VISHALBHAI TRIVEDI
119920	92200133045	NAKIBINGE GAVIN
122434	92301733046	SHIVAM ATULKUMAR BHATT
120715	92301733009	SYLEIDE MARGARIDA ATANASIO MUNEQUELE
122441	92301733062	ADITYA RAJ

6. Achievements and Outcomes:

The event achieved several key outcomes:

- 1) Participants gained a better grasp of C++ fundamentals.
- 2) Hands-on experience with competitive programming platforms like LeetCode and HackerRank boosted problem-solving confidence.
- 4) Interactive sessions encouraged collaborative learning and sharing of approaches.
- 5) The event laid a foundation for further exploration and specialization in programming domains.

7. Feedback and Evaluation:

The event received positive feedback for its engaging content and well-organized sessions. The blend of theoretical and practical components resonated with participants, enhancing both their knowledge and interest in programming. The use of established platforms for problem-solving was particularly appreciated for its relevance and challenge.

8. Challenges:

While the event was successful, we did face a few challenges along the way. Having a limited timeframe for planning and executing an event can put a strain on the entire process the collective effort of all the team members.

9. Conclusion:

The "Problem Solving Using C++" event was a resounding success, fulfilling its goals of nurturing programming skills and promoting competitive programming culture. Despite the challenges, the enthusiasm and participation highlighted its impact, setting a strong precedent for future endeavors in this domain.

10. Attachments:



Club Name: COMPETITIVE PROGRAMMING

Date: 27-07-24

Event Name: PROBLEM SOLVING USING 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?

It helped me develop my problem solving skills
in C++ and also helped me understand it better.

Club Name: Competitive Programming Club Date: 27/7/24

Event Name: Problem Solving using 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)

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

Any Other comments that you would like to mention?

Event was excellent, more content should be
covered,

Club Name: Competitive programming club Date: 22/7/24

Event Name: problem solving using C++

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

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

Any Other comments that you would like to mention?

The event was really organised and well explained
all topics used. and was not a very fruitful
session.

Club Name: CP Club

Date: 27-7-24

Event Name: Problem solving using C++

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

- ☐ Poor
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- ☒ Very Good
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- ☐ Neutral
- ☐ Slightly Relevant
- ☐ Not relevant at all

Any Other comments that you would like to mention?

Good explation

Club Name: Competitive Programming Date: 27-7-24

Event Name: Problem Solving Using C++

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

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

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

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- ☐ Highly dissatisfied

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- ☐ 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 overall session was quite insightful.
I learnt something new today and I highly
appreciate club's efforts to conduct this
session

Club Name: CP Club Date: 27-7-24

Event Name: Problem solving using C++

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

- ☐ Poor
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- ☐ Very Good
- ☐ Excellent

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

Any Other comments that you would like to mention?

Speakers presented the content very well.