



University of
Nottingham
UK | CHINA | MALAYSIA

UNIVERSITY OF NOTTINGHAM
Malaysia | OnCampus

NOTT-A-THON: LOVELACE

OFFICIAL RULEBOOK

NOTT-A-THON: TOVETAE

Organised By:



University of Nottingham Malaysia

In Collaboration with:

Electrical & Electronic
Engineering Department
University of Nottingham Malaysia

Sponsored By:

Faculty of Science
& Engineering
University of Nottingham Malaysia

Disclaimer

Nott-A-Thon are trademarks of the Institution of Engineering and Technology (IET) University of Nottingham Malaysia (UNM) OnCampus.

First published in Malaysia by the Institution of Engineering and Technology (IET) University of Nottingham Malaysia (UNM) OnCampus in 2022.

This edition: 2022

Use of the following trademarks of the Institution of Engineering and Technology (IET) University of Nottingham Malaysia (UNM) OnCampus is expressly prohibited: **Nott-A-Thon**



ATTENTION



All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the Authors and Publisher.

Jonathan Lee Kah Sheng, Chia Yu Hang, Law Jia Yu, and Ismail Merican asserts the moral right to be identified as the owners of this work.

Contents

» INTRODUCTION	0
» ORGANISERS	1
» CONTRIBUTORS	2
» SPONSORS	3
» OBJECTIVES	4
» ITINERARY	5
» PRIZES & REWARDS	6
» COMPETITION RULES	7
» ACKNOWLEDGEMENTS	11

Introduction

Nott-A-Thon: Lovelace is a programming competition organised by the Institution of Engineering & Technology (IET) University of Nottingham Malaysia (UNM) OnCampus.

Undergraduate students and lower are invited globally to participate in a team of up to 3 people per group. They are challenged to solve multiple problems with different levels of difficulty using computer algorithms in this 2-hour coding competition.

Organisers

- » RAIF HAMZAH
Organising Chairperson
- » LOO CHUAN LONG
Event Manager
- » LOW JIA YI
Treasurer
- » JONATHAN LEE
Technical Team
- » RAFAE GILL
Technical Team
- » LIM HENG AI
Marketing & Design
- » MEGAN TAN
Secretary
- » NABIHAH RAIDAH
Secretary
- » LAW JIA YU
Technical Team
- » CHIA YU HANG
Technical Team
- » USHAN FERNANDO
Technical Team
- » ISMAIL MERICAN
Marketing & Design

Contributors

- » Dr. CHAN KHEONG SANN
**Associate Professor,
Electrical & Electronic Engineering Department**
- » Dr. MARWAN NAFEA
**Assistant Professor,
Electrical & Electronic Engineering Department**
- » Dr. PU CHUAN HSIAN
**Assistant Professor,
Electrical & Electronic Engineering Department**

Special thanks and our sincerest appreciation goes towards the contributors for their huge support in organising Nott-A-Thon: Lovelace. Their effort and time invested have been a crucial factor in making the event successful.

- The entire Nott-A-Thon: Lovelace Organising Team

Sponsors

FACULTY OF SCIENCE & ENGINEERING (FOSE)

University of Nottingham Malaysia

ELECTRICAL & ELECTRONICS [EE] ENGINEERING DEPARTMENT

University of Nottingham Malaysia

We would like to express our utmost gratitude to Dr. BELLE OOI from the EEE Department for her tremendous support and guidance throughout the event's preparation. The team also owe a huge thank you to Mr. ANANDAN SHANMUGAM from the EEE Department for his ultimate support in funding the event.

Nott-A-Thon: Lovelace wouldn't reach its full potential without the FOSE's generous sponsorship. Hence, we would like to deeply thank Dr. EDWIN GOH, Associate Dean for entrusting us with this huge project. It is our honour to be able to organise the largest programming competition associated with the University of Nottingham Malaysia.

- *The entire Nott-A-Thon: Lovelace Organising Team*

Objectives

1

To provide a platform for students to collaborate, inter-connect, and expand their network within the field of technology globally.

2

Expose participants to real life applications of programming and provide them a new environment to enhance their coding skills.

3

Encourage healthy competition among participants while challenging them to utilise critical and creative thinking.

4

Strengthen the participants' soft skills such as teamwork, communication, as well as time & pressure management.

5

Promote the students' participation in activities outside of their studies which develops their personal growth.

Itinerary

DAY 1

DATE: 22 / 10 / 2022
TIME: 15.00 P.M. - 17.00 P.M. [UTC +8]
PLATFORM: HackerRank.com

Competition Day

DAY 2

DATE: 23 / 10 / 2022
TIME: 11.30 A.M. - 12.00 P.M. [UTC +8]
PLATFORM: Microsoft Teams

Award Giving & Closing Ceremony Day

Prizes and Rewards

CHAMPION

RM 1200

1st Runner

RM 600

2nd Runner

RM 300

RM 75 / Group

Consolation (4th & 5th)

*E-Certificate will be awarded to all participants including winners after the completion of the event.

Competition Rules

1.0 - Registration

1. Participants could join the competition in a team of up to 3 people.
2. Participants must register using the sign up link by 19 October 2022.
3. The registration fee is RM 30 per group. Whether there are only 1 or 3 members in the group, the fee is fixed.
4. Registration fee is payable to IET UNM OnCampus' representative:

**LIM HENG AI
7625419563**

Commerce International Merchant Bankers Berhad (CIMB)

5. Please upload your transaction slip when registering in the Google form.
6. An email will be sent when your payment is received. If you do not receive reply, kindly email efyhl4@nottingham.edu.my [Lim Heng Ai].
7. Participants who fail to register will not be eligible for prizes and rewards, while no certificate will be issued.
8. Groups must be formed by the participants.
9. Each group must submit a representative account username for submission, read further below.
10. Please ensure the submitted username is correct. Wrong usernames that result in disqualifications will not be refunded.



"That brain of mine is something more than merely mortal; as time will show."

- ADA LOVELACE -

Competition Rules

2.0 - Platform & Timeline

1. The competition will be hosted on HackerRank.com
2. The competition will run on 22nd October 2022 (Saturday) for 2 hours, from 15.00hrs to 17.00hrs [UTC +8].
3. Submissions outside of the competition time will not be considered.
4. Each group must create a HackerRank account which will be used for code submission.
5. Only **ONE** submission account per team. Submissions on multiple accounts will NOT be consolidated.
6. Groups must submit the HackerRank username of the representative account when registering.
7. Accounts that do not match the submitted username will not be considered.
8. Programming languages allowed:
 - C
 - C++
 - Java
 - Java8
 - Kotlin
 - Python 2
 - Python 3
9. Run time limits for each language can be found at this link:
<https://www.hackerrank.com/environment/languages>
10. Participants are expected and encouraged to familiarize themselves with the platform beforehand.
11. Participants are allowed to use standard libraries that are available in HackerRank. You can refer to the following link:
<https://www.hackerrank.com/environment/languages>
NOTE: The library list for Python 2 & Python 3, IS INCORRECT. ONLY PYTHON STANDARD LIBRARIES ARE INSTALLED. Refer to:
<https://docs.python.org/3/library/>

Competition Rules

3.0 - Foul Play

1. Groups found to have violated the **Foul Play Clauses** in **part 7** will be disqualified.
2. Please email efyjl10@nottingham.edu.my (Law Jia Yu) to report any foul play.
3. The organizers reserve the right to disqualify any group for unacceptable conduct or violates any of the rules stipulated in this document.

4.0 - Technical Support

1. Before the competition, please email your queries (if any) to efyjl10@nottingham.edu.my (Law Jia Yu).
2. During the competition, you can contact the organizers on Discord, via this link <https://discord.gg/YxRsbyfD>
3. Do not share your codes or solutions in the competition Discord server.
4. No compensation/refunds/time advantage/point advantage will be given for any technical issues.
5. Please ensure you have a stable internet connection for the entire duration of the competition.

Competition Rules

5.0 - Questions

1. There are seven challenges / questions throughout competition:

- 3 Easy questions worth 10 points each.
- 3 Medium questions worth 20 points each.
- 2 Hard questions worth 30 points each.

2. 10 test cases are set for hard questions.

3. Participants are free to choose the sequence of answering.

4. Successfully answering each test case will grant points.

5. SCPD Points:

- 4 s-CPD points are claimable for this event for applicable students from University of Nottingham Malaysia.
- Ensure your Library ID provided during registration is accurate.

"What is imagination? It is the Combining Faculty.
It brings together things, facts, ideas, conceptions in new,
original, endless, ever-varying combination."

- ADA LOVELACE -

"Sometimes it is the people no one imagines anything of,
Who does the things no one can imagine."

- ALAN TURING -

Competition Rules

6.0 - Scoring

1. Winners will be decided based on points scored on HackerRank.
2. Only points scored on the registered representative account will be considered.
3. If multiple teams have the same score, the following criteria will be used as tiebreakers in order:
 - Submission time of the last completed question (earlier submission wins).
 - Number of Hard questions scored (higher score wins).
 - Number of Medium questions scored (higher score wins).
 - Number of Easy questions scored (higher score wins).
 - Question knock-out (the first team who answers a question wrongly / did not score full loses).
 - Team registration time (earlier registration wins).
4. Only points scored on the registered representative account will be considered.
5. The organizers reserve the right to disqualify any team which violates any of the rules stated in this document.

7.0 - Foul Play Clauses

1. **Do NOT** attempt to sabotage/hinder/suppress/handicap other groups in any way.
2. **Do NOT** share the competition link out to non-participants.
3. **DO report** any configuration/platform/setup issues you encounter to the organizers.
4. Actions that go against the sportsmanship of the competition such as match fixing/bribery/protests are strictly forbidden.

Acknowledgements

Original Author

JONATHAN LEE

Original Co-Author

CHIA YU HANG

Co-Author

LAW JIA YU

Editor, Designer & Publisher

ISMAIL MERICAN

| END OF DOCUMENT |