

2020 DBS Skill Enhancement Education & Development (SEED) Programme

Recruitment Hackathon Participants' Information Kit

31 October 2019
0800 - 1900



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Prologue

Congratulations on being shortlisted to join us at TechTrek on the 31st of October 2019!

This information kit contains important information for the Hackathon. Please take some time to read through it.

The organizing committee strongly recommends all candidates to prepare for the Hackathon thoroughly before the event and **focus on the requirements and research section** of this document.

See you on 31st October 2019, and don't be late!

Event Day Details

Date	31 October 2019
Time	0800 - 1900
Venue	DBS Asia X, Sandcrawler Level 7
Address	1 Fusionopolis View, Singapore 138577

Schedule of the Day

Time	Activity
0800 – 0900	Registration <i>Breakfast will be served from 0730 onwards</i>
0900 – 0905	Opening Address
0905 – 0930	Briefing & Challenge Statement
0930 – 1230	Commencement of Hackathon <i>Tea Break will be served from 1000 onwards</i>
1230 – 1330	Lunch / Midpoint Check <i>Lunch will be served from 1230 onwards</i>
1700	End of Hackathon <i>Tea Break will be served from 1500 onwards</i>
1700 – 1730	Prototype Pitch to Assessor
1730 – 1745	Closing
1745 – 1900	Networking / Dinner <i>Dinner will be served from 1730 onwards</i>

Important Points to Note

Registration and Briefing

- Registration starts at **0800**
 - Please be **punctual** for the registration and briefing session.
- Teams will be allocated to you on the day of the event.
- Please bring along your NRIC or passport for verification purposes.
- Name tags will be provided, and you will be required to wear it for identification purposes throughout the event.
- Please do not wander around the building and stay only within the designated areas for the entire duration of TechTrek.

Preparation

The items listed below are for your consideration only. Unless stated otherwise, it is not a requirement to know/use all the recommended items – we would like to reiterate that these are just recommendations. You may use any other software/programming languages not listed.

All software listed are **entirely free** to download and use. **Please set up your development environment prior to TechTrek.**

Please note that as this is a team hackathon, using an esoteric¹ language might put yourself at a disadvantage.

For Developer Track

Server

- Tomcat

Programming Language / Framework / Library / Data Format

- Front-End Development: JavaScript (React / Angular / Vue)
- Back-End Development: Java (Spring Boot) or Python (Flask / Django) or JavaScript (Node.js)
- Application Programming Interface (API): JSON

Integrated Development Environment (IDE)

- IntelliJ Community Version (<https://www.jetbrains.com/idea/>)
- PyCharm Community Version (<https://www.jetbrains.com/pycharm/>)
- Visual Studio Code (<https://code.visualstudio.com/>)

API Development Environment (ADE)

- Postman (<https://www.getpostman.com/>)

¹ intended for or likely to be understood by only a small number of people with a specialized knowledge or interest.

Requirements

Knowledge of RESTful API is **required**

- Making an API call to retrieve data from backend service.
- Understand what Content Headers, HTTP URL Path Perimeter and Variables are.
- Ability to call APIs can be helpful with tools like
 - Postman (<https://www.getpostman.com/>)
 - Curl Commands (<https://curl.haxx.se/>)

Knowledge of using Git is **required**

- Your team will be required to collaborate with Git.
- You are not required to know anything complex about Git – just push, pull, and merge.
- Please set up a GitHub account prior to the event (<https://github.com/>).
- You are required to push all code commits to GitHub and retain the repository with public access for at least 30 days after the event.

Research

- [RESTful APIs](#)
 - <https://www.restapitutorial.com/>
 - <https://spring.io/understanding/REST>
- Git
 - <https://www.atlassian.com/git/tutorials/learn-git-with-bitbucket-cloud>

You are also strongly recommended to research more on data analytics and data presentation.

For Security Track

You can bring tools that might help in any of the areas below.

Recommended Knowledge

- Network Traffic Analysis
- Reverse Engineering
- Digital Forensics
- Penetration Testing
- Web Application Security

Things to Prepare

- Laptop (**Pre-installed with any version of Windows OS**) with at least 50GB free space and can support the following software
 - Wireshark
 - VM Virtualbox (**Pre-installed Kali Linux**)
 - 7Zip (Mac users can get an equivalent software to unzip files with password)

Tools to Prepare (Free Version)

- IDA Pro Free Version
- Ollydbg
- FTK Imager
- Bulk Extractor
- Browser History
- Process Explorer
- Process Monitor

Challenge

All teams will be given the challenge statement on the day of the hackathon itself.

Teams will be at a strong disadvantage if a ready-made solution is used for the challenge. Teams are strongly discouraged from submitting a solution with nothing substantially new added to a pre-existing solution.

What to Bring

- NRIC and Passport
- Personal laptop with charger
- Stationery
- Jacket
- Water Bottle. A water dispenser will be available at the venue
(As part of the bank's sustainability efforts, we would like to encourage all participants to **Recycle More, Waste Less**, and avoid disposable plastic bottles)

Meals & Refreshments

Please inform us prior to the hackathon if you have any food allergies/special dietary requirements.

Meals, refreshments, and snacks will be provided throughout the event.

Judging

- Judging will be done by a panel of assessors appointed by DBS Bank Ltd.
- Apart from the presentation and Q&A segment, assessment will also be conducted throughout the duration of the Hackathon.
- Regardless of the number of team members in a team, judging will be based entirely on individual merit.
- Each team will have 10 minutes at the end of the Hackathon to present their prototype
 - 5 minutes pitch
 - 5 minutes Q&A
- All members should present during the pitch.
- **No PowerPoint slides should be used** – teams should pitch with their prototypes only.
- Further judging criteria will be briefed on the day of the event.

<!-- END OF INFORMATION KIT -->