

# Technical Exercise

Thank you for participating in this technical exercise.

Each item listed as part of the technical test and technical suggestions in this document are optional.

**You will need to plan your time wisely, and start from your area of strength, frontend or backend, to implement as much as you can.**

If you are unable to address any of the technical issues in this exercise, please send your thoughts to us together with what you have finished.

## Requirements

Goals: The following tasks help the team to understand your technical skill set and problem solving methodology.

Tasks: Write an application that does the following

- Allows a user to login
  - You can choose your familiar frameworks for backend and frontend, e.g. Java Spring Boot, React, etc.
- Persist the user account information into a cloud database (e.g. firestore or cloud sql in GCP etc.)
- Allows a user to search Flickr by tag and return matching pics in a nicely formatted way
  - Ref: [https://www.flickr.com/services/feeds/docs/photos\\_public](https://www.flickr.com/services/feeds/docs/photos_public)

Host the website on Google Cloud Platform (GCP) App Engine or other free, cloud platform.

- Please try not to use virtual machines or containers, e.g. AWS EC2, GCE, and Kubernetes

## Your solution should

- Have no obvious security risks
- Have source code and resource files well organised
- Have source code and comments properly formatted
- Use design patterns properly
- Use git for version control and having properly organised commits

# Other suggestions

- Use Java as the backend language and Spring Boot as the backend framework
- Use Maven/Gradle to manage the backend dependency
- Use Angular/React/VueJS as the framework of frontend
- Use npm/yarn to manage the frontend dependency

# References

- <https://cloud.google.com/free/>
- <https://cloud.google.com/appengine/docs/standard/java/quickstart>
- <https://github.com/spring-cloud/spring-cloud-gcp/tree/master/spring-cloud-gcp-samples>

# Your submission

Please include the following details for your work when replying back, thank you in advance!

Projects:

Your git repo(s) url

Website URL: e.g. <https://XXX.appspot.com> for App Engine application in GCP

Login username: XXXX

Login password: XXXX

For your Git Repository and any other cloud services you use (GCP, AWS, etc), please give the following account enough permission so that we can review your project, thank you!

[esol-custom-applications-support@monash.edu](mailto:esol-custom-applications-support@monash.edu)