***Task-6***

**1.1** *Task-6* **– Serverless: Cloud Function implementation**

## Goal

Learn about Serverless and how to use Cloud Functions (FaaS).

## Prerequisites

Review lecture content and other suggested learning materials.

## Task

Think about useful use-case of Serverless based scenario using Cloud Function(s). This assignment contains a practical part as well as couple of slides explaining Use-case implementation process (idea, schema, components, triggers and business logic of Cloud Function(s)). You are not bound to any particular Cloud Provider and are free to make your own chose.

Use-case of API Gateway based RESTful Service can be considered as a minimum sufficient requirement. Aiming at higher result (grade), you should implement some extra Cloud Function (different from API Gateway based). Even more valuable solution might include implementation of a use-case with several Cloud Functions from different Cloud providers, or use of cloud provider-independent serverless platform for integrated solution.

The task is individual; however, if you find the way to distribute business logic among your colleagues and integrate your individual parts as kind of event-driven Microservices, it would be also great. If you decide to go this way, it might be also beneficial in the context of your individual Task 5.x, since you can learn more about differences between the similar type components (cloud services) offered by different Cloud Providers.

Regardless the way you decide to implement your task, do not forget to include description of “step-by-step” implementation and integration process in your presentation. That will be very useful for other students.

## Task alternative!!!

## If you do not have a possibility to create an account in the cloud due to credit card related issues…

Study available cloud services that might play a role of a trigger for Cloud Function. Think about useful use-cases of Serverless based scenarios using Cloud Function(s) and make a PowerPoint presentation of the ideas (3-4 ideas) with corresponding integration schemas. Get ready to present your ideas and business logic behind them and corresponding split to cloud functions. You are not bound to any particular Cloud Provider, as well as, integrated solutions with several clouds are welcome.

**1.2** *Course feedback*

Please, provide a feedback with respect to the course. Let me know, if your expectations regarding the course did not meet actual course content. Feel free to suggest the topic(s) you would be interested in and would like to add into the course materials to improve it, as well as share your opinion regarding the ways your personal learning process could be improved (ways that might fit you learning process better). Also, please, mention what was OK for you and does not require any changes in the context of both: course content and teaching/learning style.

<your feedback here>

**1.3** *Returning the task*

Provide the result of the Task-6 in two archives:

* *Archive including* ***presentation*** *and Cloud Function(s) business logic source code regarding the first part of the task:* ***TIES4560-Task-6.zip***
* *Archive including* ***this document*** *with feedback****: TIES4560-feedback.zip***

Send the archives to lecturer (oleksiy . khriyenko @ jyu . fi)

Deadline for Task-6: **17.10.2023**