CSE563: Internals of Application Servers

Spring Semester 2021

Hackathon 1: Application Development Model

Problem Statement: Define and implement an Application Development model for the IOT applications platform.

The model should be well defined targeting end users that enable them to build and deploy applications and allows you (platform) to receive, setup and run the application. The focus of the hackathon is just around the application and running it (and not about other server capabilities like HA, scaling, security etc).

Model should include various artifacts involved, structures, interfaces, processes for how each should be built, what meta data definitions, packaging, deploying, setting up and running.

Define various user roles and what each role will do in the above process.

The hackathon is to define the model/process/structures and implement the server-side part of this i.e to receive a packaged application, set it up and run it. For Sensor streams, you can use any simple simulation to test.

You should build a small application (except the ones discussed in the class) as per your model and test the whole process by running it. Mention use cases of your application in your report.

Deliverables:

- A video of maximum 15-minute time duration where you talk through your report and shows the whole flow of your code by running it. Video should be uploaded on OneDrive and a link for the same should be included on the first page of your report (make sure you give appropriate permission).
- A **src** folder containing all your code.
- A **report.pdf** having **very detailed** explanation of your proposed solution (you are free to use diagrams, figures etc. if it's your own).

Note:
- No need for any complex dashboards, Web UI or CLI(you are free to make one).
- No need to do load balancing or future scheduling activities.