Challenge 7

Remove EE Charms when VNF has only day-1 operations
State of the art

- When a VNF has day-1 operations in the descriptor new charms are created to perform these operations. After the operations are completed, the charms are still deployed, but they won’t be executed anymore.

- Current flow:
  - For each VNF (and each VDU/KDU belonging to it) register a task to create an execution environment
  - Execute the tasks
    - Create a new execution environment
    - Deploy the application
    - Execute initial configuration primitive (day-1 operation)
The proposed solution

- At instantiation keep track of entities (NS, VNFs, VDUs, KDUs) requiring only day-1 configuration
- Wait for instantiation
- Remove all execution environments (applications) associated to the previously tracked entities
- Delete information regarding the removed execution environments from the database
For each VNF (and VDU/KDU belonging to it) and NS:
- If only day-1 operations are present -> store identifier on the entity (NS/VNF/VDU/KDU specific)
- Wait for instantiation tasks (model creation, application deployment, day-1 operation execution)
- For each previously saved identifier
  - Retrieve application names from VCAs
  - Register tasks to remove the selected execution environments
- Wait for removal tasks
- Delete from the database the information associated with the removed execution environments
Changes in N2VC

- Modify `async def delete_execution_environment(...)`:  
  - add optional "application_to_delete" argument:
    - connect to Juju controller
    - remove the application
    - wait for application removal
    - if model is empty -> destroy the model
    - disconnect from Juju controller
Demo

- Network Service with 2 VNFs
- VNF 1:
  - only day-1 operation
- VNF 2:
  - day-1 operations
  - day-2 operations
Thank You!