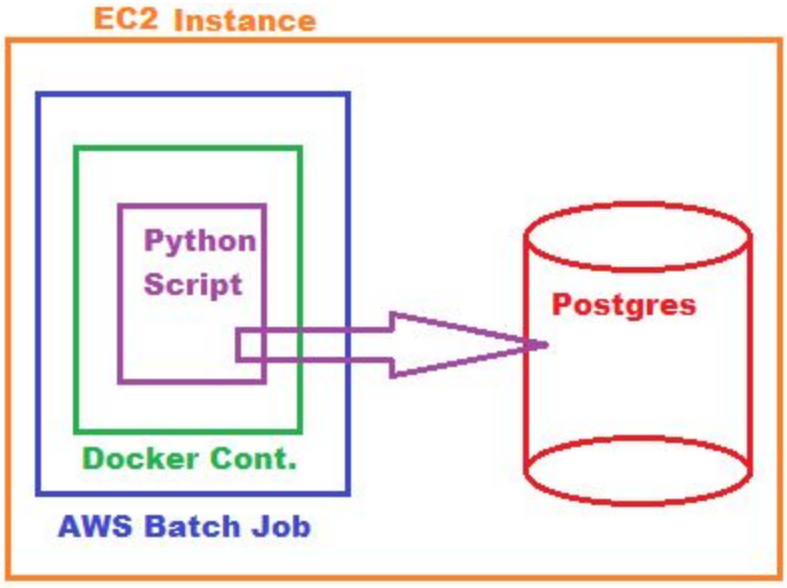
Question 3

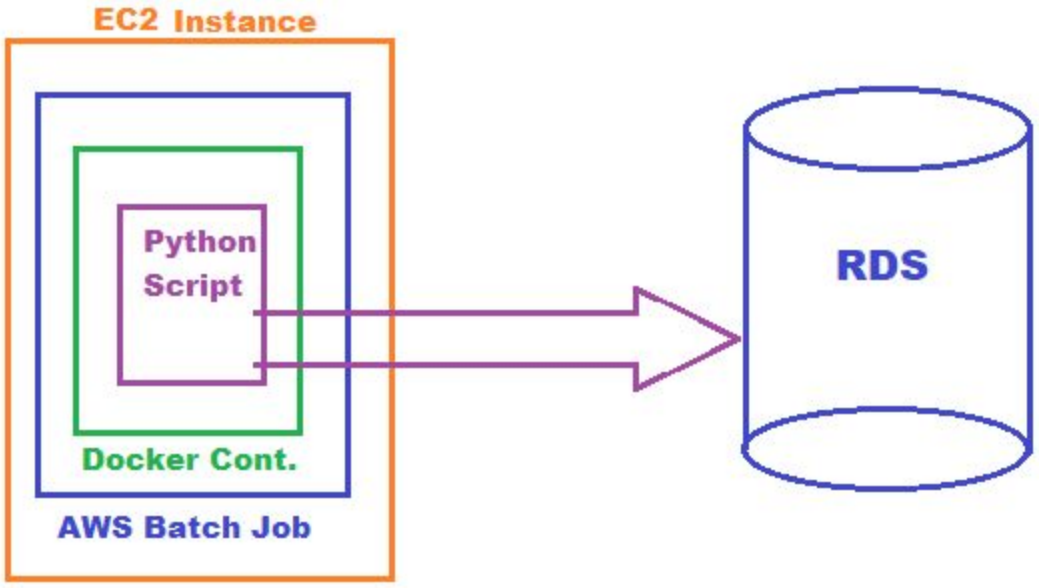
- The application created in Exercise 1 or 2 needs to be scheduled and ran as a job. Describe the engine you will design - specify its tech stack.
- Include as much detail/specification as needed

For my example questions I used a postgres database as an example, I imagined this as a cheap option if the scope of the DB is small, have an EC2 instance running a postgres DB along with the script in a docker container to run an AWS batch job.



Though in reality if the scope of the DB and process is larger perhaps use an AWS RDS for the DB and just have the container with the script in a EC2 instance and connect to that separate DB as an AWS batch job.
This way we can leverage the full capabilities of RDS such as a replicated standby instance in a different availability zone as well as handling automatic fail-over. This would minimise potential problems.

As a scheduled task I'd add all the console logging and use it to compose an email, so as to be notified when it runs and of any potential problems or use AWS cloudwatch and SNS to send emails on failure of the AWS batch job.


EC2 Instance
Python
Script
Docker Cont.
AWS Batch Job
RDS