Task #11 – CI/CD tools

What to do

1. Create a CodeCommit repository and port your project from EPAM GitLab into it.
2. Create a CodeBuild spec which would
    a. checkout the code from the CodeCommit repository from step 1
    b. test the code (optionally)
    c. package the code for the **Lambda function** from module 9
    d. publish the code to an S3 bucket
3. Delete the Lambda function AWS resource from module 9.
4. Create a SAM application for the Lambda function from module 8 and ensure it's able to deploy the Lambda package published to S3 on step 2. Optionally, specify Lambda functions for testing the SAM deployment.

    Note: the task doesn't imply execution of SAM CLI deployment commands from the CodeBuild; the SAM template should be used on the deployment CodePipeline stage.
5. Create a CodePipeline which would
    a. react to any commits to the CodeCommit repository from step 1
    b. run the CodeBuild from step 2
    c. trigger the CodeDeploy automatically created as a part of the SAM application from step 4
6. Make some changes to the Lambda function code and ensure the CodePipeline builds and deploys it.
7. Upload a new image to the image S3 bucket, trigger the recently deployed Lambda (manually or by schedule), and ensure an email notification which mentions the image is sent.

What should I remember?

1. **Once you create AWS Account -> Setup Multi-factor Authentication**
2. **Do NOT share your account**
3. **Do NOT commit your account Credentials into the Git**
4. **Terminate/Remove all created resources/services once you finished Module**
5. **Please Do not forget to delete NAT Gateway if you used it.**
6. **Do NOT keep instance running if you don't use it**
7. **Carefully keep track of billing and working instances so you don't exceed limits**