## Python & Git based Assignment

- 1. Create a flask based web-service that should do the following
  - a. Take a GET request at the end-point http://l27.0.0.1:5000/getip or http://localhost:5000/getip and return the string {"ip": YOUR\_IP\_ADDRESS} where YOUR\_IP\_ADDRESS is a placeholder for your local ip.
  - b. Load the iris dataset from scikit-learn, build any basic ML model on it.
  - c. Train a CNN for MNIST dataset.

For b & c , show your model's performance using metrics such as precision, recall, accuracy, confusion matrix, etc. For all the above, Emphasis should be on writing code using the concepts explained previously such as unit-testing, documentation and writing methods which have clear task associated with them.

- 2. Post developing the above,
  - a. Verify unit-tests working them by running them against pytest
  - b. Create a coverage report using coverage command.
  - c. Generate documentation using pydoc3 command.
- 3. Upload the code to Github
  - a. Use pre-commit hooks.
  - b. Raise a PR
  - c. **[Optional]** All the interns can pair-up and each one in a pair can review the others code and provide feedback then approve the PR's. This will give you the feel of how code reviews happen across organisations.
- 4. **[Bonus]** If you can set in-place the Github Actions so that once PR is raised, certain checks checks happen and successful run of the checks will ensure ability to raise the PR. You can search the internet.