Lab 1 – Introduction to Git and GitHub

Insert the micro SD card into the Pi, plug it into the monitor, keyboard and mouse, and then connect it to power.

Open VSCode using the Raspbian start menu in the top left corner of the screen. VSCode is available under the Programming Tab.

Tasks

1. Run eduroam-linux-UoG.py, provided in the ee347 folder, to connect the Raspberry Pi to Eduroam. Log in with your university credentials. Due to Eduroam blocking NTP time synchronisation, you may need to synchronise the Raspberry Pi's time by either connecting to a different network, i.e. a Hotspot, or by using:

```
sudo date -s 'YYYY-MM-DD hh:mm:ss'
```

Register for GitHub and join the EE347 24-25 GitHub Classroom here. Select your name and create your team i.e. 'Group 1' and join. Only one teammate needs to create a team.

2. Open VSCode on the Pi and use a Git Terminal to set your git credentials. Use the name and university email of one teammate who has registered for GitHub.
3. Using VSCode, or otherwise, clone the Lab 1 Repository linked in your GitHub Classroom into the ee347 folder in your home directory, as below:

```
ee347
├── eduroam-linux-UoG.py
└── lab1
```

4. Using the simple unix commands (mkdir, touch, cd, ls) in the **terminal**, copy the file and folder structure as shown below:

```
lab1
├── folder_a
│   ├── folder_b
│   │   └── file_d.txt
│   ├── file_b.txt
│   └── file_c.txt
└── file_a.txt
```

5. Add file_c.txt to the .gitignore file provided. Ensure the file isn't tracked, then commit and push to git. Include the commit message 'Task 6', and verify the commit in GitHub.
6. Create a new branch, called 'new-branch'. Checkout to this branch, make the changes to the file structure as shown, then commit to 'new-branch'.

```
lab1
├── folder_a
│   ├── folder_b
│   │   └── file_d.txt
│   ├── folder_c
│   │   └── file_b.txt
│   └── file_c.txt
└── file_a.txt
```

7. Edit file_b.txt to include both team members names. Commit these changes to ‘new-branch’.
8. Using a Git Terminal on VSCode, revert the changes from task 8.
9. Merge ‘new-branch’ into the master branch.

Commit and push all changes to GitHub when finished.