# Lab 1

## Rasa Coding Workbench

## Instructions:

1. Complete the tasks and steps listed under the Requirements section below.
2. Participate in the Lab Discussions on Canvas/Module 1

## Requirements:

1. Install Python 3.10 from this URL:
   - https://www.python.org/downloads/release/python-3100/

2. Install VS Code from this URL:
   - https://code.visualstudio.com/download

3. Check python versions installed on your computer and verify that you have Python 3.10 installed by executing from the terminal/window the command:
   - py –list

4. Create python 3.10 virtual environment by executing the following commands from the terminal/window:
   - py -3.10 -m pip install virtualenv
   - py -3.10 -m virtualenv venv
   - venv\Scripts\activate

5. From venv terminal/window, execute the following commands to install Rasa-Pro:
   - pip install uv
   - uv pip install rasa-pro --extra-index-url=https://europe-west3-python.pkg.dev/rasa-releases/rasa-pro-python/simple/

6. Use your school email address to get Ras-Pro License Key from this URL:
   - https://rasa.com/rasa-pro-developer-edition-license-key-request/

7. Use your personal email account to create a login and API KEY for OpenAI gtp-3.5-turbo from this URL:
   - https://platform.openai.com/api-keys

8. Set up your environment variables for OpenAI Key and Rasa-Pro License
   - set OPENAI_API_KEY=ADD_YOUR_OPENAI_API_KEY_HERE
   - set RASA_PRO_LICENSE=ADD_YOUR_ RASA_PRO_LICENSE _HERE

9. Verify Rasa-Pro (Rasa Version 3.8.10) got installed successfully by executing the following command:
   - rasa –version

10. Execute the command below to scaffold a project template for your first AI Assistant tutorial, the **moodbot** is the playground toy assistant, (https://rasa.com/docs/rasa-pro/tutorial ). Executing the following command from the terminal/window:
    - rasa init

11. Inspect every file and directory of the structure and content of scaffolded project template, your scaffolded project template should look similar to the following:

| Name | Date modified | Type | Size |
| --- | --- | --- | --- |
| .rasa | 7/15/2024 1:41 PM | File folder | |
| actions | 7/15/2024 1:41 PM | File folder | |
| data | 7/15/2024 1:41 PM | File folder | |
| models | 7/15/2024 1:42 PM | File folder | |
| tests | 7/15/2024 1:41 PM | File folder | |
| config | 7/15/2024 1:41 PM | YML File | 2 KB |
| credentials | 7/9/2024 11:54 PM | YML File | 1 KB |
| domain | 7/9/2024 11:54 PM | YML File | 1 KB |
| endpoints | 7/9/2024 11:54 PM | YML File | 2 KB |

12. Train/build your assistant/bot by executing the following command from the terminal/window:
    - rasa train

13. Start interacting with your assistant in the browser by executing the following command from the terminal/window:
    - rasa shell

14. Start interacting with your assistant in the terminal/window by entering the following prompts (one prompt at a time) from the rasa shell/terminal/window:
    - Hello there
    - Great
    - Hi
    - Not good
    - Yes
    - /stop

15. You could also interaction with your assistant in the browser by executing the following command from the terminal/window:
    - rasa inspect

16. For debugging purposes, you could start an interactive session with the bot to see its thinking and reasoning while conferring with the bot (see below sample output) by executing the following command from the terminal/window:
    - rasa interactive

```
Chat History


#     Bot                                      You
 ─────────────────────────────────────────────────
 1    action_listen
 ─────────────────────────────────────────────────
 2                                      Hello there
                             intent: greet 1.00
 ─────────────────────────────────────────────────
 3    utter_greet 1.00
      Hey! How are you?
 ──────
Current slots:
        flow_hashes: None, session_started_metadata: None

? The bot wants to run 'action_listen', correct? (Y/n)
```