Nottingham Trent University

SOFT20091 – Software Design & Implementation 2

2019/20

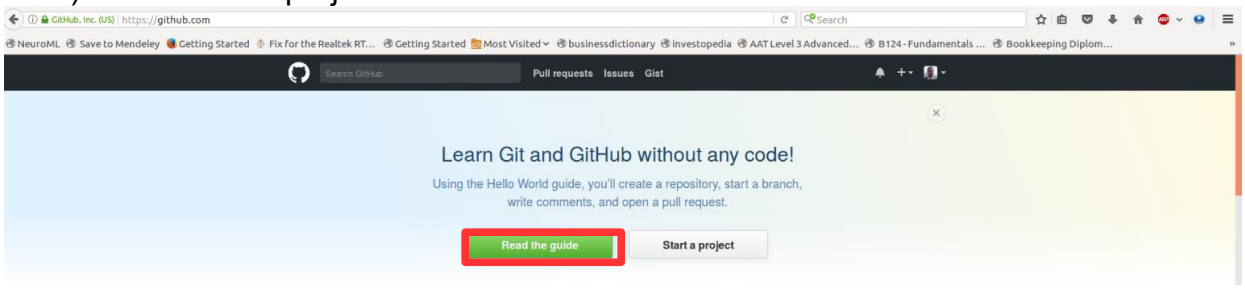
Lab 2

First part: Follow the tutorial

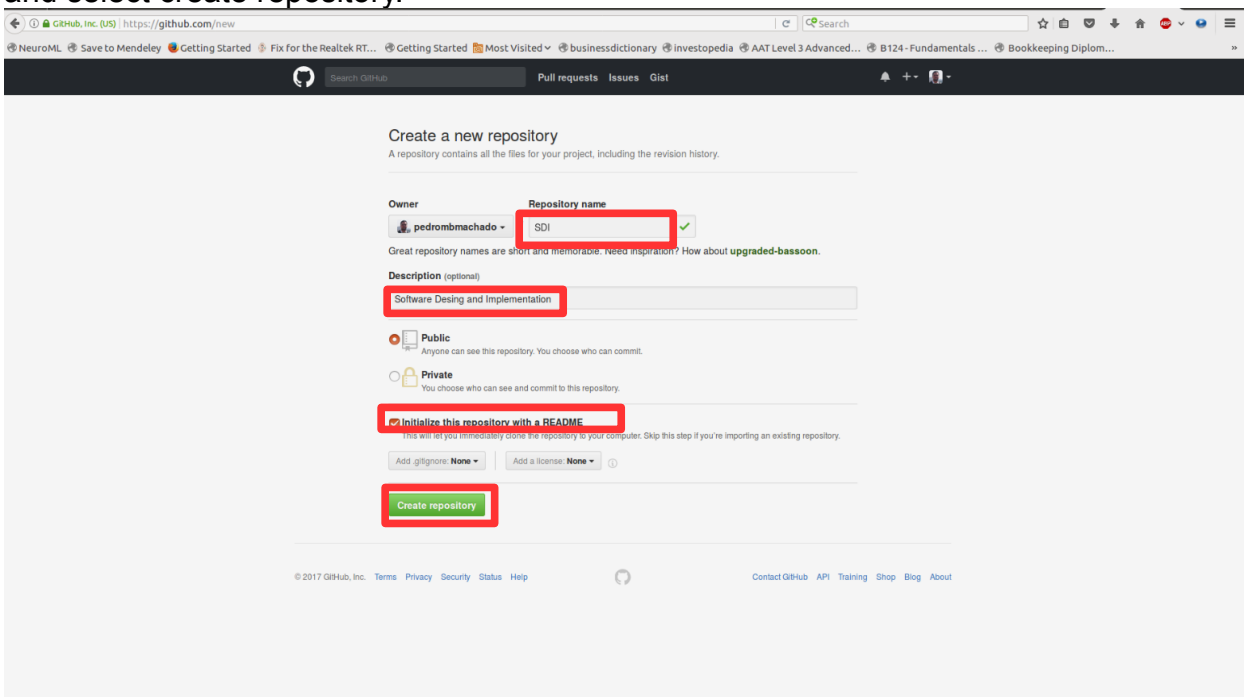
- Follow the following tutorial for configuring your GitHub.

1) Setup a GitHub account

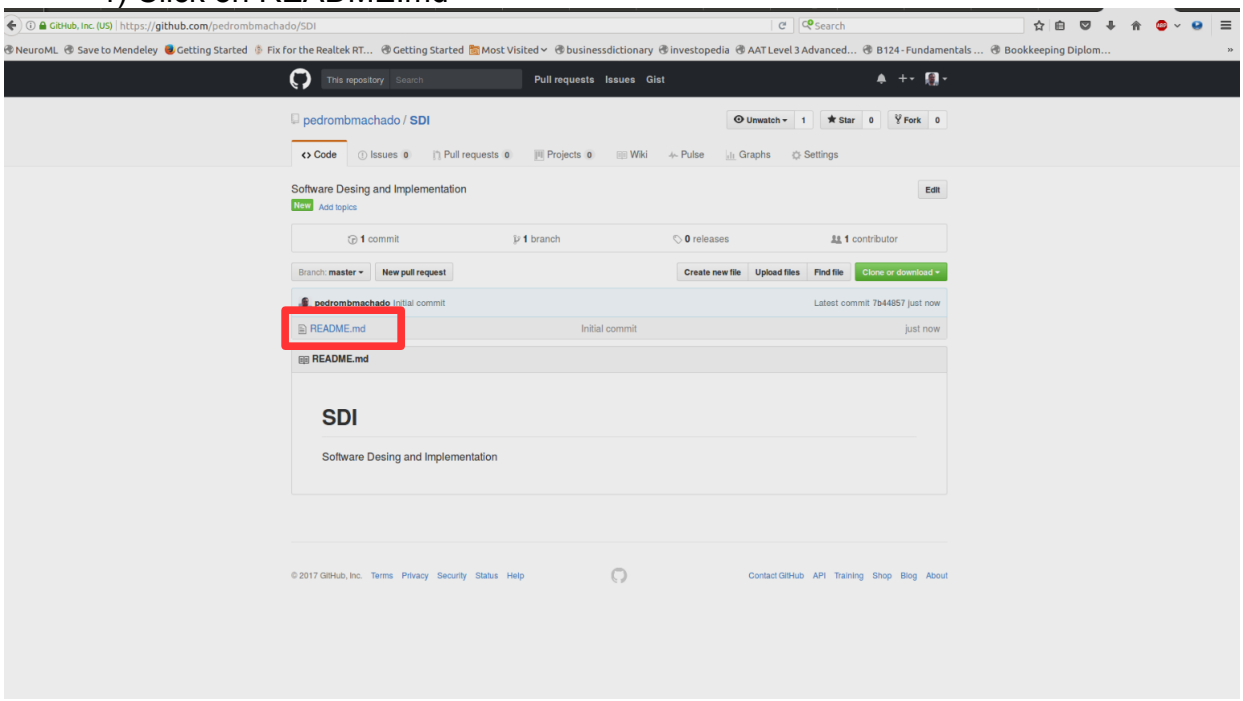
2) Select start a project



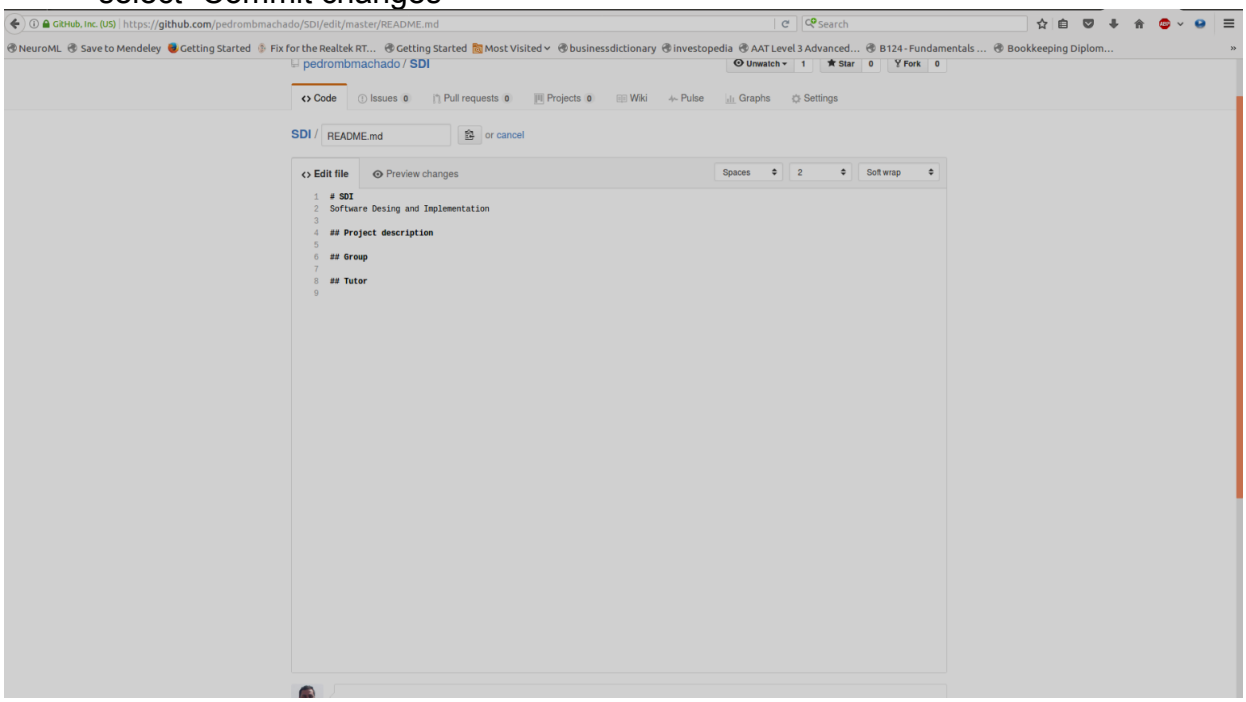
3) Enter the repository name, description, select initialize this repository with a README and select create repository.



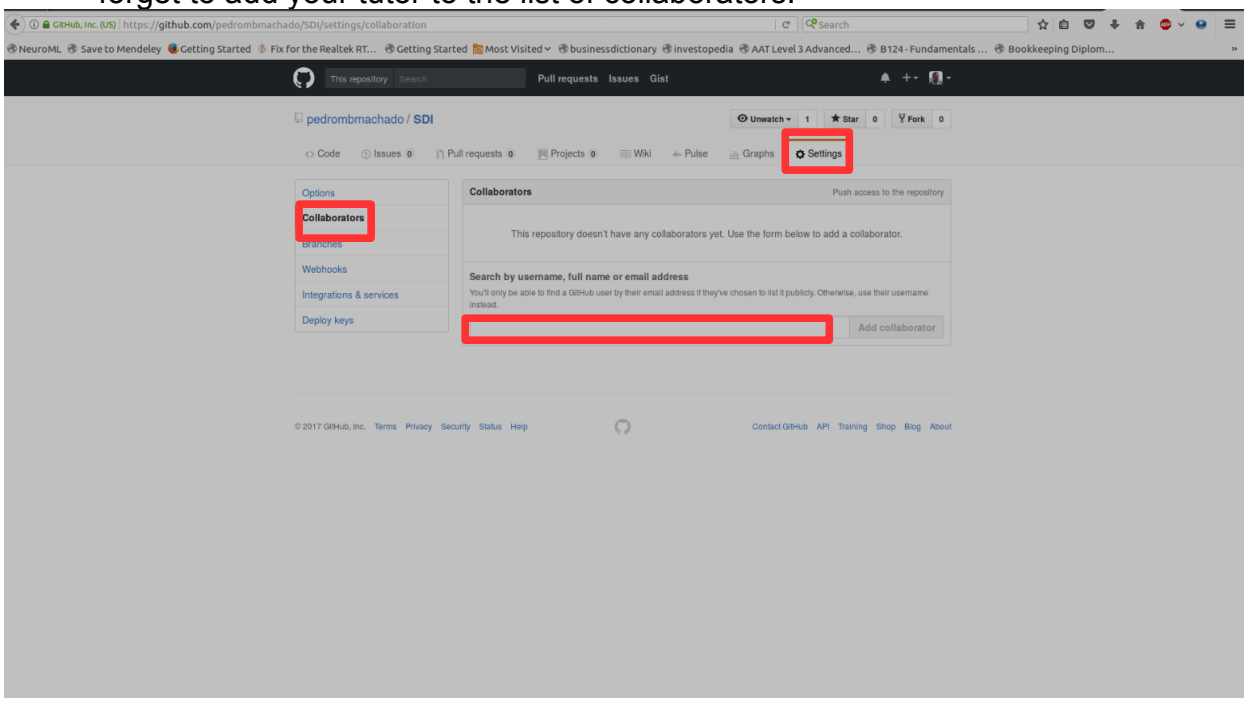
4) Click on README.md



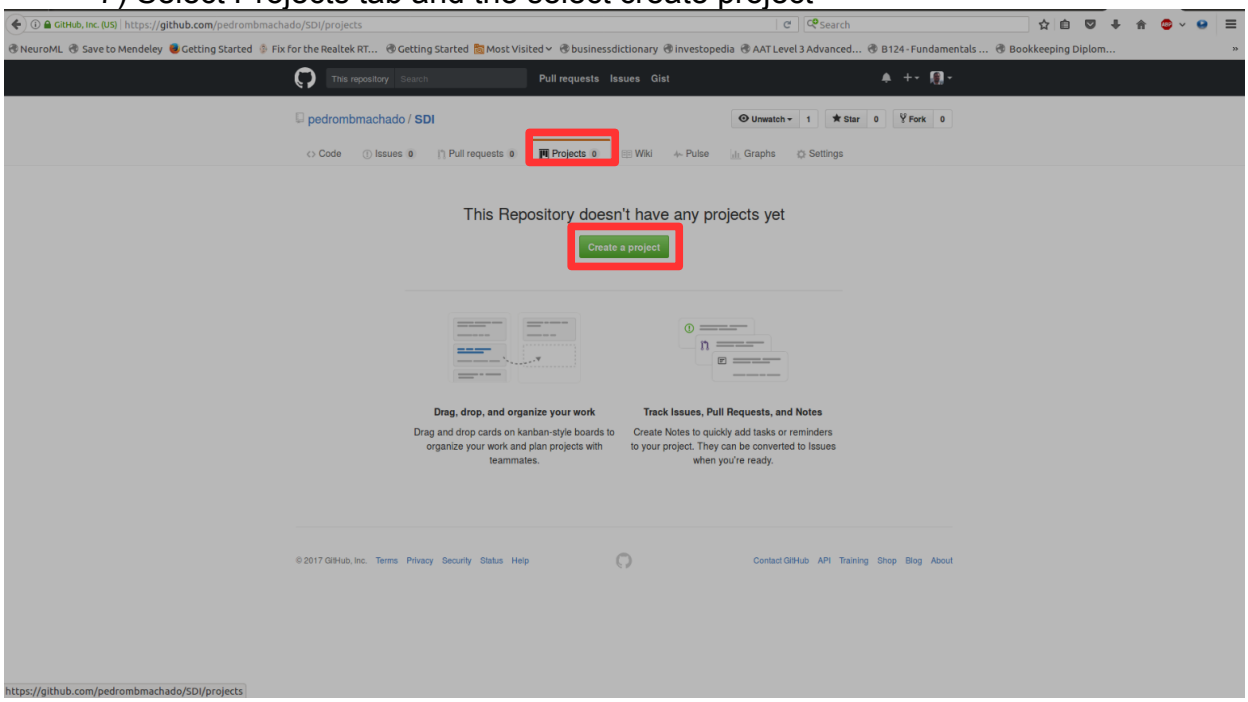
5) click and edit README.md, Add “## Project Description”, “## Group”, “Tutor” and select “Commit changes”



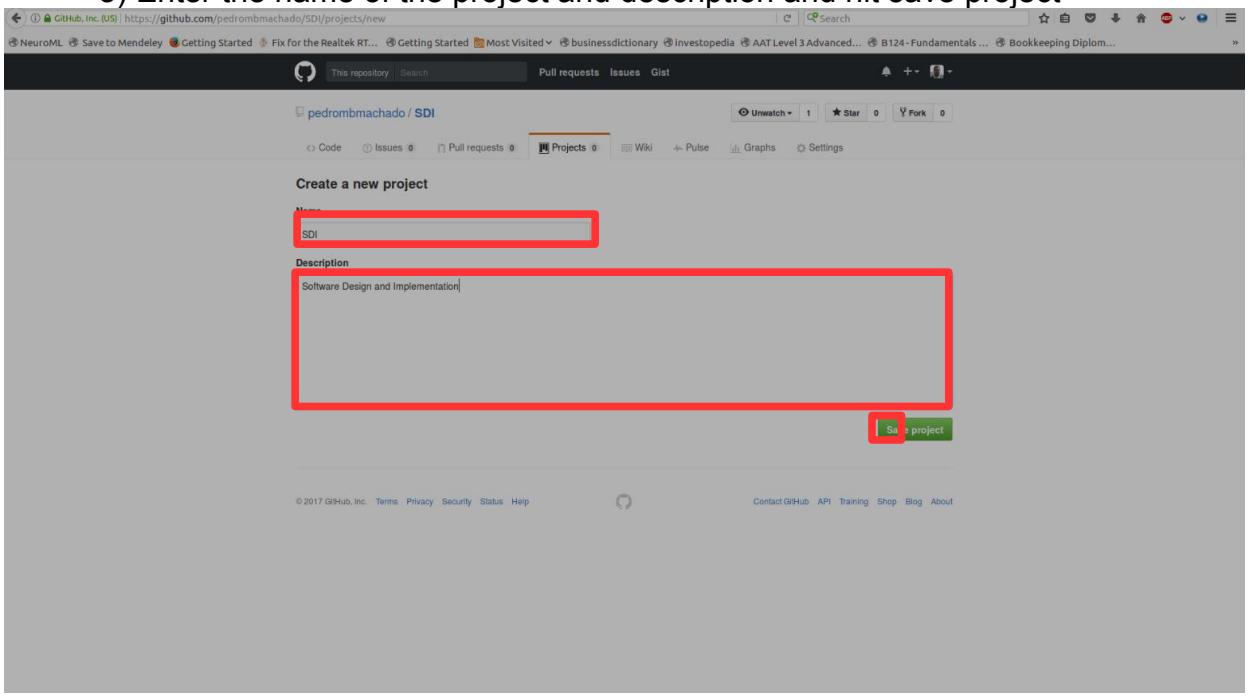
6)Select settings tab, select collaborates and invite the other members. Do not forget to add your tutor to the list of collaborators.



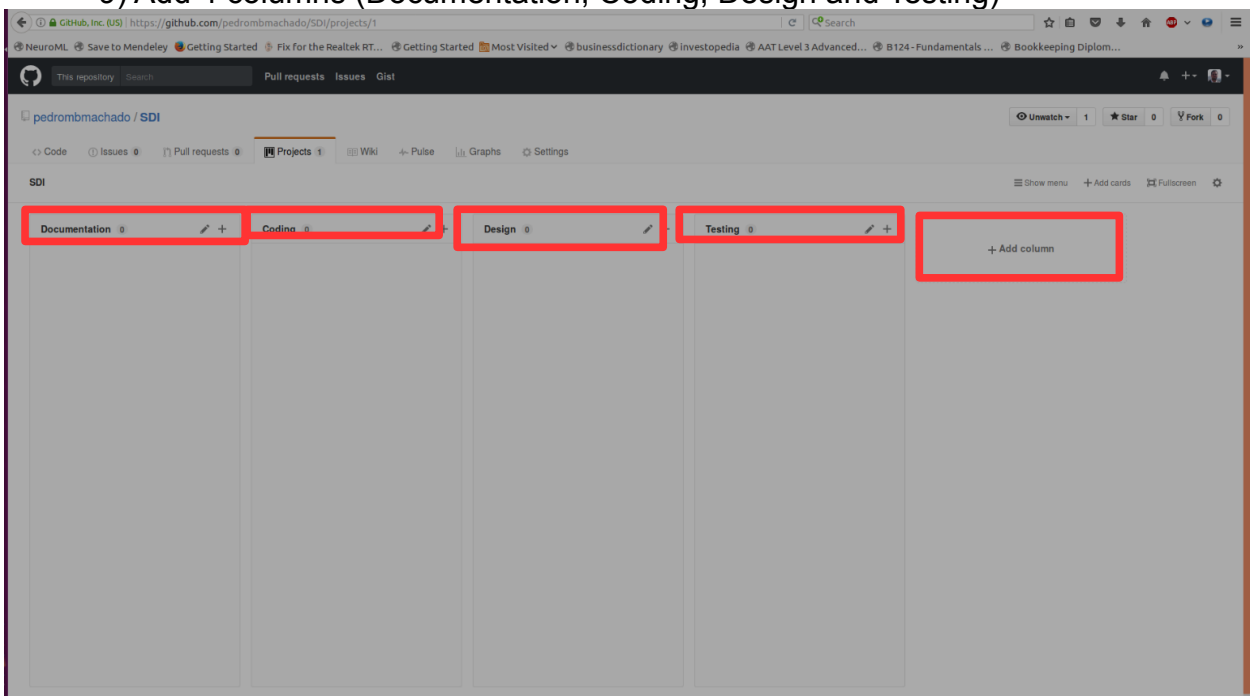
7) Select Projects tab and the select create project



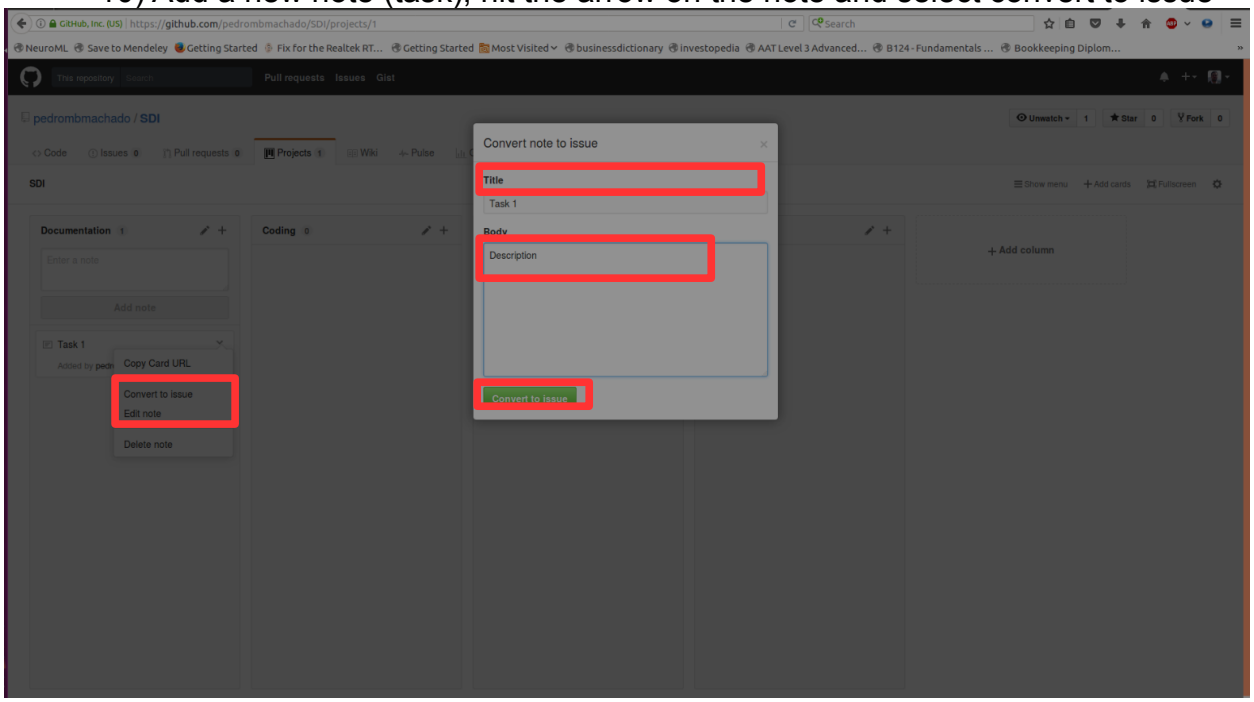
8) Enter the name of the project and description and hit save project



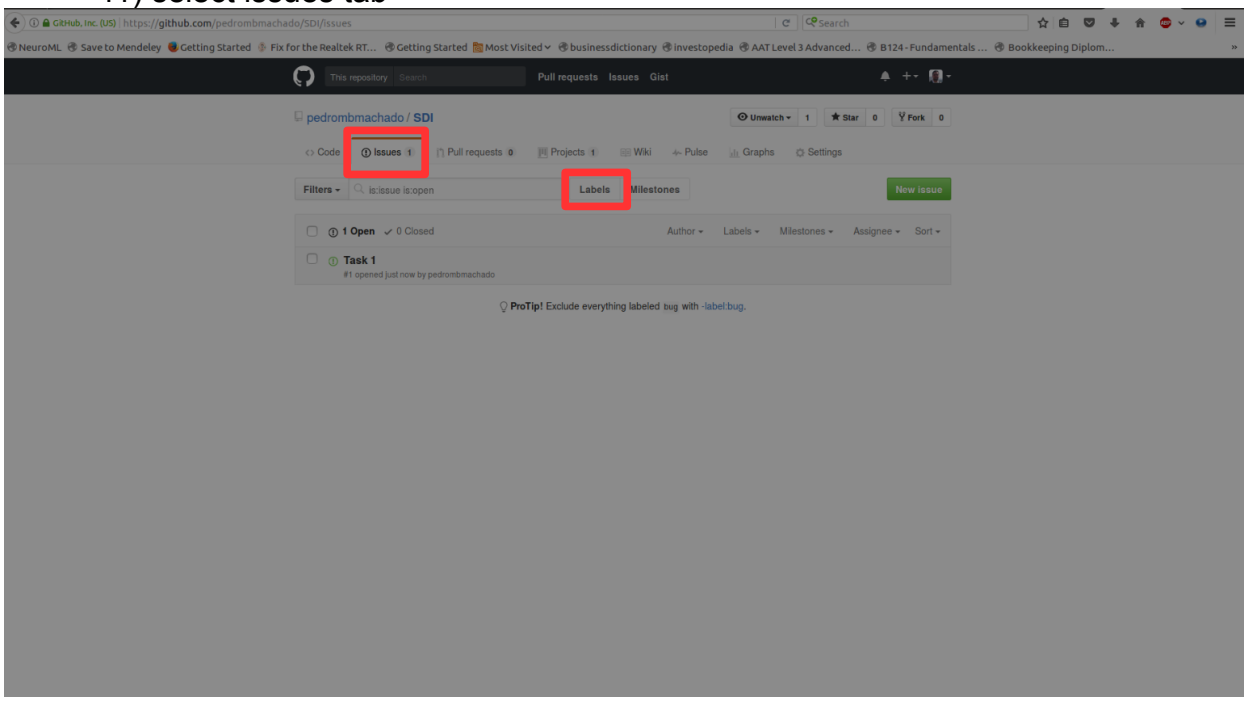
9) Add 4 columns (Documentation, Coding, Design and Testing)



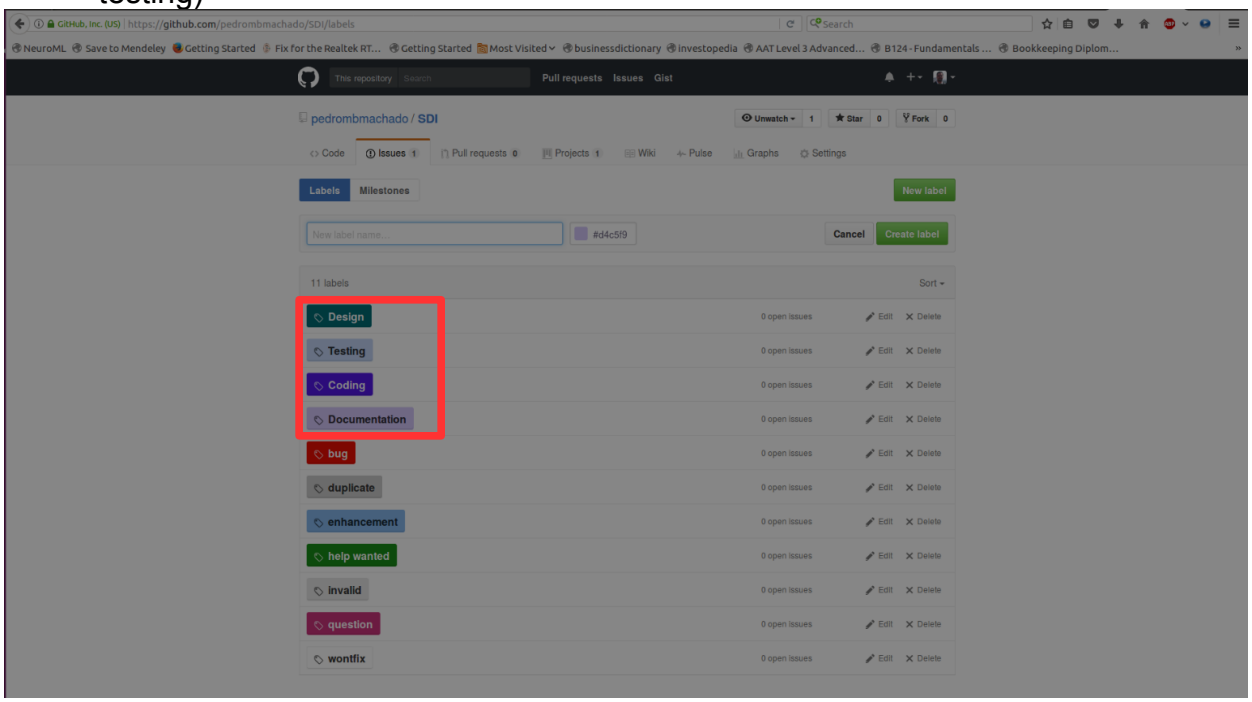
10) Add a new note (task), hit the arrow on the note and select convert to issue



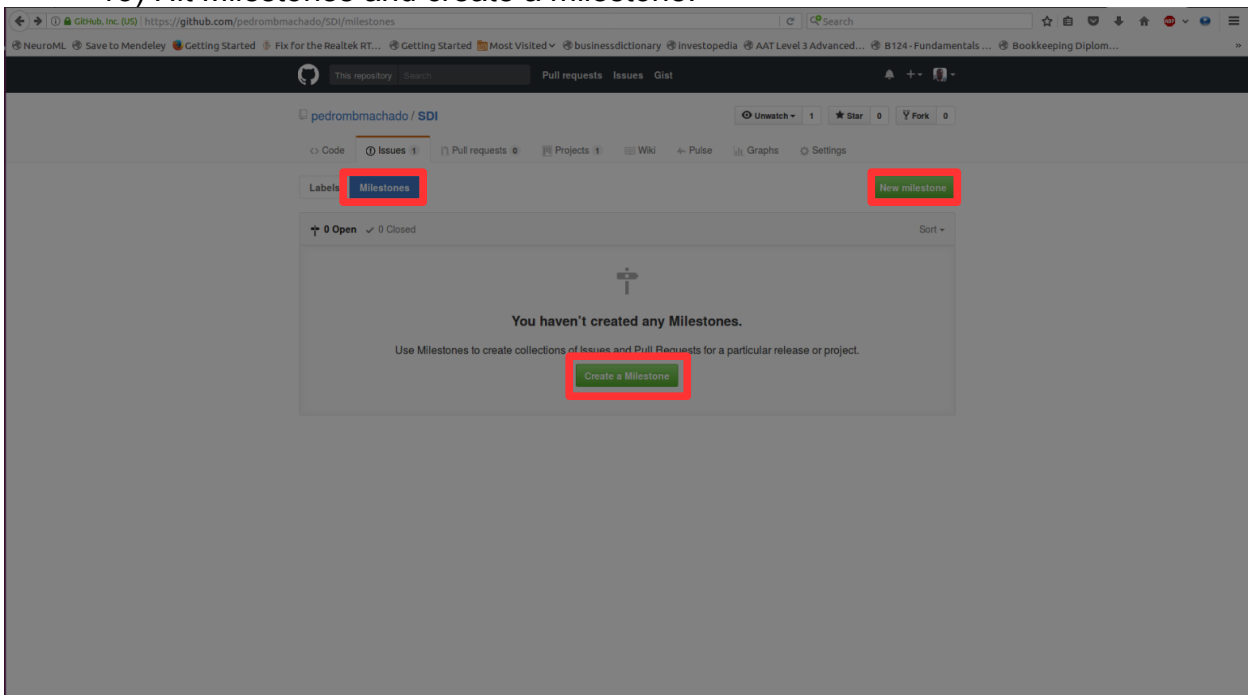
11) select issues tab



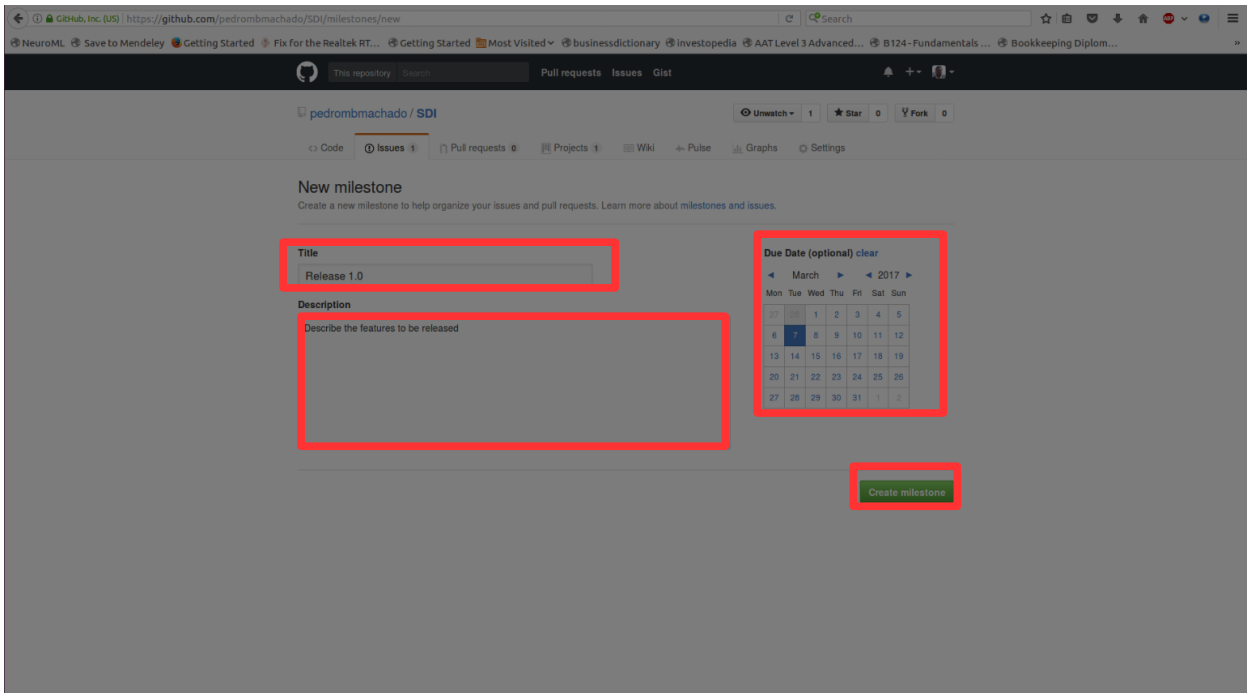
12) Hit Labels and create the same 4 labels (coding, documentation, design and testing)



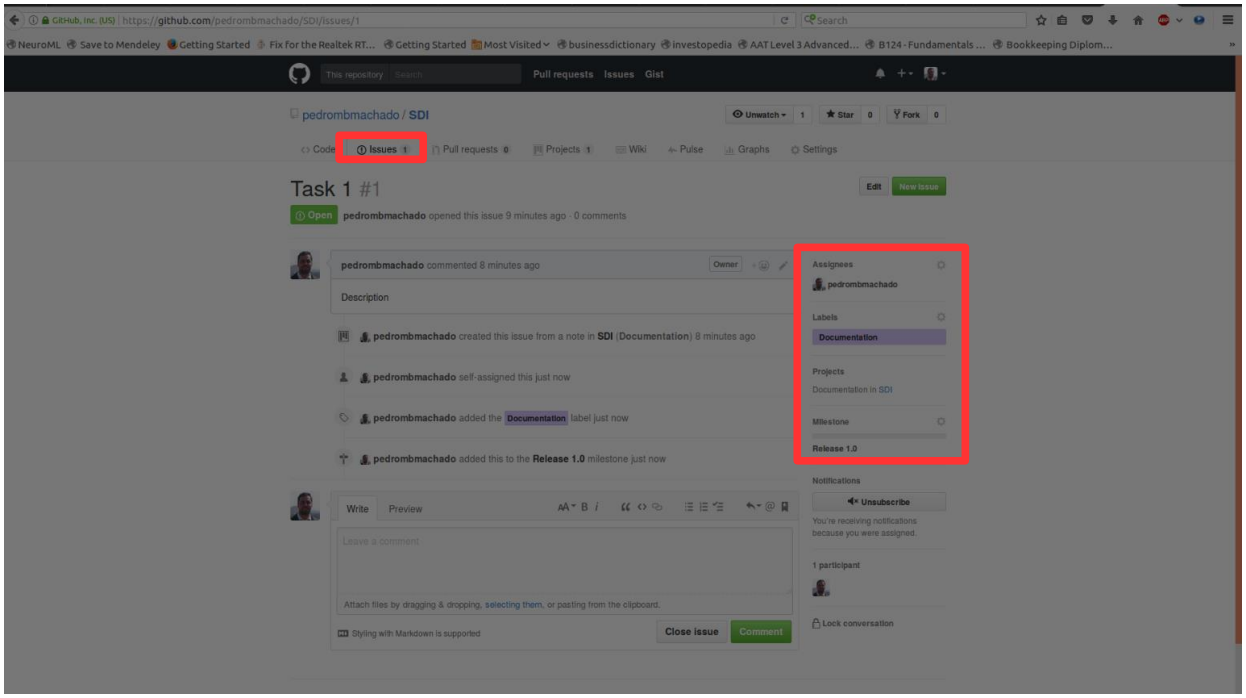
13) Hit Milestones and create a milestone.



14) Insert the milestone designation, describe the features to be release, assign a date and hit create milestone.



15) Select Issues tab again, select the previous issue. Assign assignees, Labels and milestones.



Second part: Programming exercise

Suppose that you have the following definitions:

```
struct timeType
{
    int hr;
    double min;
    int sec;
};
```

```
struct tourType
{
    string cityName;
    int distance;
    timeType travelTime;
};
```

a) Declare the variable **destination** of type **tourType**.
b) Write C++ statements to store the following data in **destination**:
    i. **cityName** – Nottingham,
    ii. **distance** – 130 miles
    iii. **travelTime** – 3 hours and 15 minutes
c) Write the definition of function to output that data stored in a variable of type **tourType**.
d) Write the definition of a value-returning function that inputs data into a variable of type **tourType**.
e) Write the definition of a **void** function with reference parameter of type **tourType** to input in a variable of type **tourType**.