# Python Project List

## • Track –Server Design

- Building a simple interactive website using python flask as the server
  - http://flask.pocoo.org/
- The website should have a login module or any other module that requires the students to read a database.
- The database can be a simple text file that stores the user name and password, for people who are feeling more adventurous can explore python connection with Mysql
- Motivation for the track This track will enable the students to learn the students how to build a website and service the request of clients. This project will enable the understand the conundrums of web development, which will they have to deal with in their come courses.

# Track – Game Development

- Building a simple graphical game using the pygame library
  - https://www.pygame.org/wiki/GettingStarted
  - https://docs.python.org/2/library/tkinter.html
- The students can build any graphical game that they wish.
- Motivation Doing this project the students will learn how graphics can be incorporated in their programs.

#### • Track – Algorithms

- In this track the students will implement well know algorithm, such as the Huffman encoding or RSA public encryption. The students can select their own algorithm to implement on the condition that it is of substantial difficulty level.
- Motivation This track will give the students a flavor of implementing algorithm in python, which they will have to do for their future courses.

### Track – Socket Programming

- In this track the student will implement a basic chat room. The project should allow two users to communicate with each other. For simplicity the project should focus on connecting only two users.
  - https://docs.python.org/2/howto/sockets.html
- Motivation This track focuses on real world application of python