**Discussion 1**

What is Abstraction? Why do we need it? What are the two aspects of Abstraction?

Abstraction is the process of simplifying things and identifying what are the important factors that are needed in your logical program. It allows people to better manage complexity.   
  
The two aspects are algorithms & data structures.

**Discussion 2**

When choosing a password for online accounts, there are typically certain requirements for the strength of the password. Develop a Python program for testing if a string satisfies some appropriate criteria for a strong password. It’s up to you to define the requirements.

**Discussion 3**

Consider a system for storing anonymous grades of each lab class. Define a data structure, which can identify individuals in each lab group by an ID number 1-40 (inclusive). To identify the person in the entire class you would also need the group name, e,g., ‘FE2’. Each corresponding person should have a number between 1-100 (inclusive) to define grade.

**Discussion 4**

Given two lists of grades (list of integers) from two classes, write a Python program that will check which class has the highest average score and the highest maximum score.

**Discussion 5**

Write a Python program, in the fewest number of lines possible, which creates a list of all the square numbers: x2 (where 1<=x<=100) that are divisible by 3.