Assignment 1:

How error handling is done in solidity?

Errors can occur at runtime and compile time.Solidity uses statements like assert,require and revert to handle errors.

Assert:

Based on the condition,it returns a boolean value by which it ether continues the execution or throws an exception. Instead of returning the unused gas, the assert statement consumes the entire gas supply and the state is then reversed to the original state.

Some assert exceptions are:

- When a value is divided or modulo by zero.
- When accessing an array in an index which is too big or negative.

Require :

It accepts a single argument and returns a boolean value after evaluation, it also has a custom string message option. If false then

exception is raised and execution is terminated. The unused gas is returned back to the caller and the state is reversed to its original state.

Some require exceptions are:

- When require() is called with the arguments which result as false.
- When a function called by a message does not end properly.
- When a contract is created using the new keyword and the process does not end properly.