# Module Guide for Client-Server Submission System

## Administration Client

### Service

Creates directory structure for system based on config files.

Provides menu to administrator for interaction with Password Generation, and Reporting Modules.

### Encapsulated change

Structure of config files.

## Password Generation and Verification Module

### Service

Generates passwords for a student on request from administrationClient.

Clears passwords for a student on request from administrationClient.

### Encapsulated change

Password generation algorithms.

## Student Submission Client Program

### Service

Accepts command line parameters that specify student, password, course, and assignment file.

Connects to server and transfers file to server upon authentication of student, password, course, and assignment file name and verification that the assignment is not being submitted after the due date.

### Encapsulated change

Format of parameter and file transfer.

## Submit Server Program

### Service

Opens socket and waits for connection from Client Program.

Passes student id and password to Password Module for verification of the student.

On verification of student, verifies student course combination.

Receives assignment file from Client Program if all verifications succeed.

Sends errors codes to Client Program on error.

### Encapsulated change

Format of parameter and file transfer.

## Reporting Module

### Service

Makes and executes students’ submitted assignments, capturing output on request from administrationClient.

Compares assignment actual output to lecturer supplied expected output.

Creates files for reporting test results.

### Encapsulated change

Process of testing student submitted files for failures