Purdue University
CS 40800

Advanced Submission System

Product Testing Instructions

Team 15

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Introduction

The Advanced Submission System is designed to replace Purdue's venerable and error-prone **turnin** program. The Advanced Submission System uses a graphical interface within the terminal to allow for mistake-free assignment submission and assignment grading. The final project contains two programs, **grades** and **submit**. Instructors use **grades** to assign grades to students or view student grades after grading. Students may use **grades** to view their own grades and **submit** to submit a directory/file for grading.

System Requirements

- Linux Operating System (Debian preferred)
- x86 Architecture

Program Structure
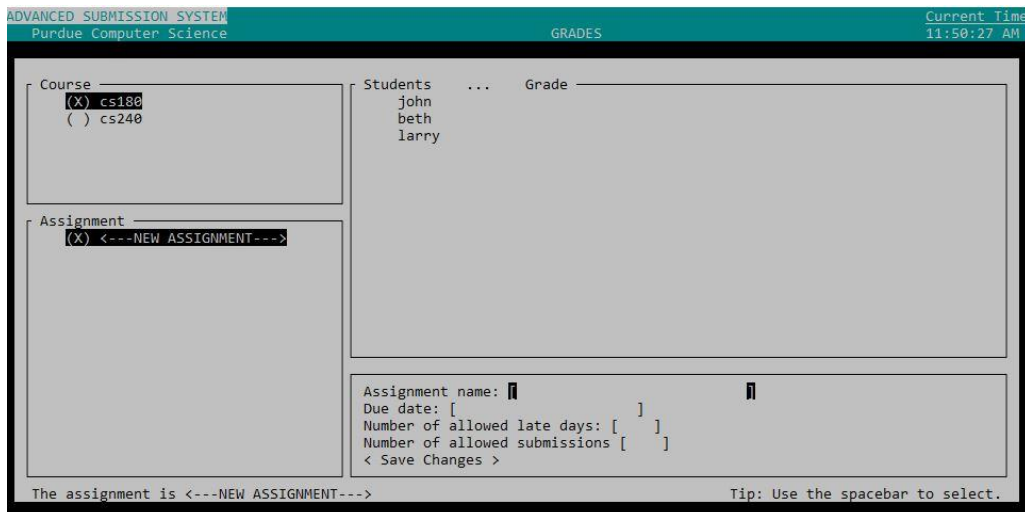
Submission Program Functions

The submission program, **submit**, contains the following functionality:

- Selection of course for submission
- Selection of an assignment for submission
- Selection of directory to submit in student's current working directory.
- Navigation between the above-mentioned selection panels with *Tab* and *Space* keys to change selection before submitting.

Grade Program Functions
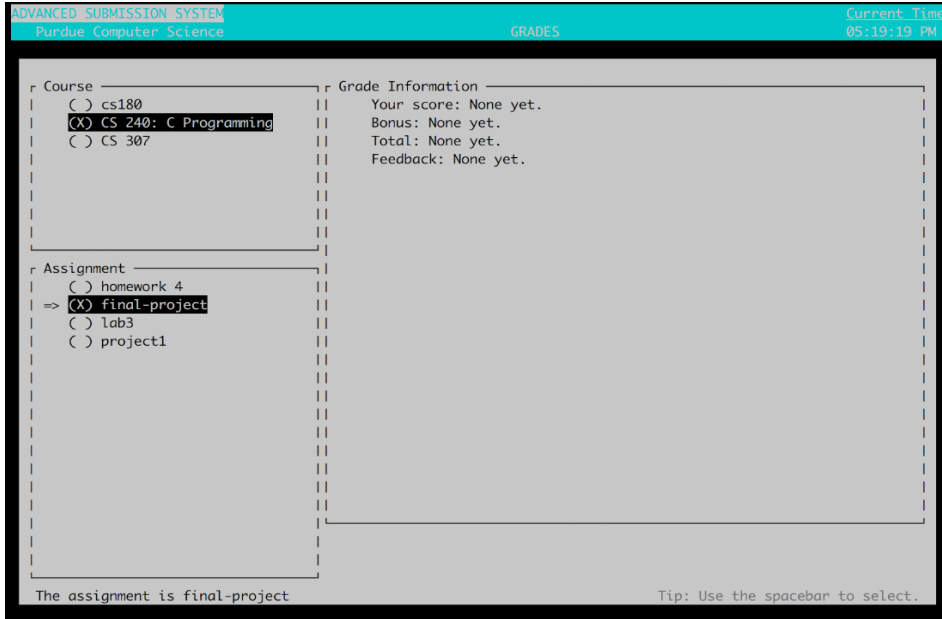
The **grades** program contains the following functionality:

- Instructor portal

- o Selection of course to grade
- o Selection of assignment to grade
- o Creation of new assignment

- o Entering the grade and feedback/comments for every submission
- o Navigation between the above-mentioned selection panels with *Tab* and *Space* keys to change selection before assigning grade.
- Student portal

- o Selection of course to view the list of all its assignments.
- o Selection of assignment within course to view grade.
- o Navigation between the above-mentioned selection panels with *Tab* and arrow keys to change selection.

Non-Interface Functions

Course creation is outside the scope of the program since it is to be done at most once a semester by the system admin. The testing team may modify the global configuration file *global.config* located in the */etc/submission/* directory to add or delete courses.

The program also assumes the instructors do not engage in unauthorized behavior such as accessing/modifying the contents of submissions in courses they do not teach. As such, there exists no barrier to instructors from accessing submissions in any existing course. This design choice was also made to allow instructors freely migrate between courses without the help of a network admin if the need arises.

Basic Operation

The following section describes common end-user interactions with the system. For testing, one may SSH into the server specified in the "Test Server Information" section, which contains a functioning system.

UI Controls

Basic controls are common across both interfaces. The left and right arrow keys move backwards and forwards between UI elements. The Tab key moves forwards through UI elements. The space bar selects items in a list. The enter key selects items and then moves forward to the next UI element.

File Submission

File submission for a student is carried out through the **submit** interface. Students my only submit to courses that they are part of.

1. Go the directory of the items you wish to submit. i.e if you wish to submit ~/cs358/project1, run the **submit** command in ~/cs358/ directory.
2. Select a course you wish to submit for. A successful selection is indicated by an "x" adjacent to the course name.
3. Continue to select the assignment and the directory you wish to submit.
4. Navigate to the *SUBMIT* button and press enter. A success/failure response should indicate whether the intended file/directory was submitted for grading.

Assignment Creation

The instructor may wish to create a new assignment that students may submit to after following the steps below.

1. Run the `grade` program as an instructor
2. Select the course that you wish to create an assignment in
3. Select "<---NEW ASSIGNMENT--->"
4. Enter in the assignment name, due date, number of late days allowed, and maximum number of submissions allowed.
5. Click on <Save Changes> and the assignment will be created
6. Student submission folders are created automatically and will contain a file called "grade.config" which stores information related to the students grade for the assignment. Only students in the class user group will have a submission folder.

Test Setup

The test server supplied by the development team will contain two instructor accounts and three student accounts. The accounts will be assigned to corresponding user/instructor Linux user groups to determine the privileges that the user receives when running **grades**. Students will be assigned to a *students* user group with an additional user group for each class they are enrolled in. Instructors will be assigned an *instructors* user group with privileges to read/modify all submissions.

The development team will also initiate the configuration files and directories required to begin usage of the system with black-box testing techniques.

Test Server Information

This server is set up as a test environment for the Advanced Submission System project.

SSH Connection

Server: aerial.purdueieee.org
Port: 1869

Test Accounts

All information is case sensitive!

Account	Username	Password	Primary Group	Other Groups
Student Account 1	mary	cs408Team15!	cs408-students	course-cs180 course-cs240
Student Account 2	jane	cs408Team15!	cs408-students	course-cs180 course-cs307
Student Account 3	bob	cs408Team15!	cs408-students	course-cs307
Instructor Account 1	cs408instructor	cs408Team15!	cs408-instructors	
Instructor Account 2	cs408instructor2	cs408Team15!	cs408-instructors	