Alexandria University
Faculty of Engineering
Computer and Systems Engineering
Fall 2014

Semester-long Project
CS333: Operating Systems
Assigned: November 5, 2014
Due: Multiple

Pintos Projects

Notes

You need to work on this project in teams of size two or three. You need to send me a list of the names of the members of each group by Sunday, November 9, 2014. Please note that some of the phases of this project are depending on each other, therefore you will not be allowed to changes members of any group during the semester.

Note the amount of code you will need to add for each phase of the project so you can allocate your time wisely. The amount of code to be added is listed in the FAQ section of the description of the corresponding phase.

No extra credit will be given for this project. Therefore, if you implement any part of the project that is marked as "for extra credit", it will be for fun.

Objectives

- Understand different modules of the operating system that are studied in class.
- Get a hands-on experience with kernel implementation.

Introduction

Pintos is a simple operating system that is developed at Stanford University. Four Projects are based on it and are assigned to students taking operating systems courses at several universities including Stanford University and Virginia Tech.

An introduction of Pintos is provided at this link from Stanford University web site. You will need to read the details of pintos and how to add your code and debug it carefully. Pintos documentation is available at this link

We encourage you to follow the Stanford coding standards.

Submission Instructions

- Generate a grade report using "make grade". Save this report in the directory: pintos/src/<project>/GRADE.

- Fill the design document of the corresponding phase of the project. Try to use short lines (less than 80 characters) to make it easy for us to read it.

- Create a tar.gz file of your entire pintos directory. To save disk space, please run make clean in the pintos/src directory before submitting.

- Send your submission as an attachment to an email to cs333f14@gmail.com with the subject line as: pintos submit x, group y where x is the project phase number and y is the student IDs of the members separated by underscores. For example if students with IDs 100, 101, and 102 are submitting the first phase of the project, the subject line should be "pintos submit 1, group 100_101_102".

- You can make multiple submission. However, we will only mark the last, and you should make any subsequent submissions as a reply to the first email that you sent.

- You can use any slip days if you have. You will need to follow the guidelines sent to you earlier.

Instructions For Downloading and Installing Pintos on your machine

The code of the project is downloadable from this link.

The document pintosIntro.pdf describes the steps required for installing and running pintos on your machine.

Phase 1: Threads

Due: November 19, 2014 at 11:59 PM
The details of this phase of the project are described in these documents:
Project Description.
Template for Design Document.

Phase 2: Multiprogramming

Due: December 6, 2014 at 11:59 PM

The details of this phase of the project are described in these documents:
Project Description.
Template for Design Document.

Phase 3: Virtual Memory

Due: December 20, 2014 at 11:59 PM

The details of this phase of the project are described in these documents:
Project Description.
Template for Design Document.

Phase 4: File Systems

Due: January 3, 2014 at 11:59 PM

The details of this phase of the project are described in these documents:
Project Description.
Template for Design Document.