

CS 486: Assignment 2

Library

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Due **11 Feb 2015**
Hand in Code plus use document

1 Overview

C has so few built-in capabilities that the first job is to build some basic libraries that your OS (nanoOS) will use. Components of these libraries include memory/string manipulation, printing, basic data structures, and storage allocation.

The basic library was built in homework 1. To this basic library, you should also add:

- `malloc`
- `free`

These should use the Linux linked list structure described in class to connect together allocated areas. You must test them, ensuring that multiple object sizes can be handled, the storage freed is coalesced and can be used for different allocation.

These libraries are to be integrated into your nanoOS. This assignment requires that you integrate and test these libraries with 2 pieces of software we will provide:

- Assembly language initialization code
- Binary console driver

and boot them under Xen to demonstrate that they are working.

2 What to hand in

As per Piazza.