Programming Project I, First Report

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1 Abstract

Smartphone users launch many apps everyday, however one of the most fundamental things a smartphone does is abstracted away: memory management.

Although smartphones have advance significantly (RAM, architecture, processors) compared to their first predecessor's, deactivation [1] is a solution that is often less-than-perfect. Although Java's Garbage Collection and Swift's Automatic Reference Counting (ARC) have sufficed, there are other methods.

In this project I propose to solve this problem three techniques:

- Brute Force
- Dynamic Programming
- Greedy Solution

2 Introduction and Motivation

As stated previously, memory management is solved in a less-than-perfect manner. Although current technology suffices, we would like to compare algorithms to show the significant gains via three different approaches (Brute Force, Dynamics Programming, and Greedy).

3 Proposed Solution

For our project we decided to take a more skeuomorphic and object oriented approach, modeling objects after their real world counterparts, such as `Application` or `Smartphone`. As for the approaches, we have the following solutions:

[1] The process of "the operating system needing to choose and remove some apps from the memory", a subproblem of memory management.

3.1 Brute Force

3.2 Dynamic Programming

3.3 Greedy Solution

4 Plan of Experiments

5 Team Roles

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