Binus International
University

Project Proposal

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Algorithm Design & Analysis

Overview

- Background
- Problem
- To Be Measured
- Proposed Solution
- The Flow
- Resources

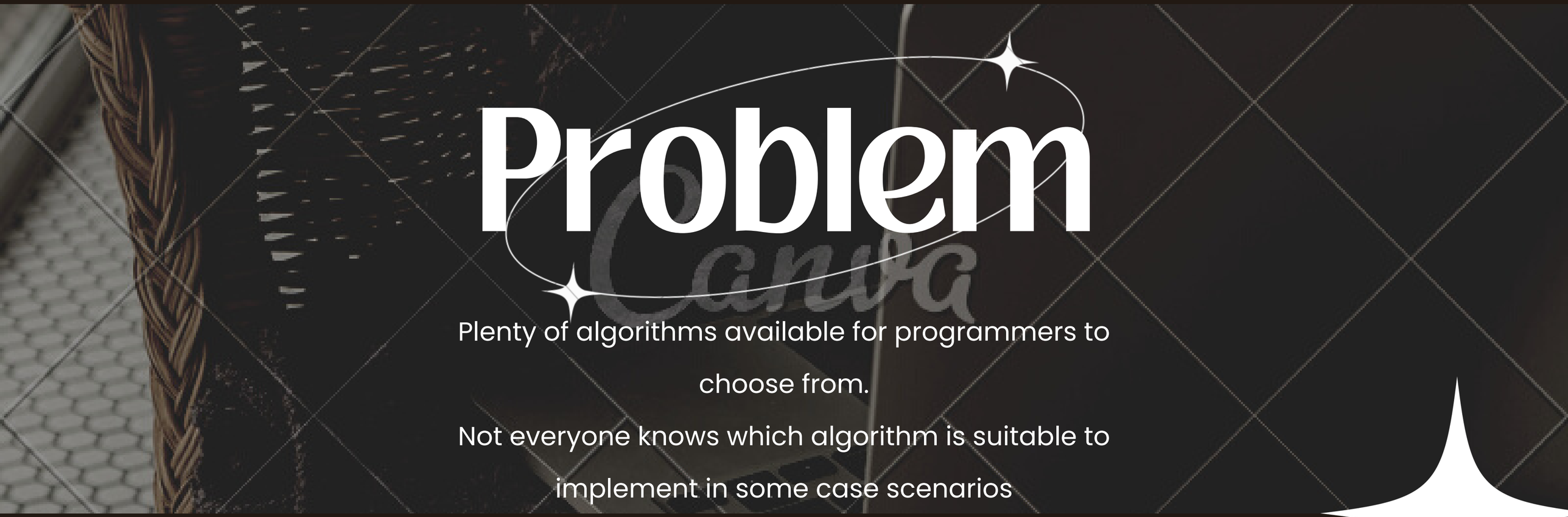
Background

Topic

Comparison between Greedy, Divide & Conquer and Dynamic Programming

What is an algorithm?

A sequence of finite steps to solve a particular problem.



Problem

Plenty of algorithms available for programmers to choose from.

Not everyone knows which algorithm is suitable to implement in some case scenarios

Measure

Runtime

Take in and measure the runtine for each algorithm at different input sizes and input type

Memory

Take memory measurements of code with different kinds of inputs and different sizes of input

Solution

We propose to compare three different algorithms and have it coded using C++. By using three different algorithms and comparing them in three different cases, we hope to finally reach a conclusion and have a better understanding on when to apply certain algorithms in the future.

Flow

Phase 1

Prepare the code algorithm.

Phase 2

Measure the time and space complexity.

Phase 3

Comparison between memory, time, code simplicity

Phase 4

Identifying pros and cons of each algorithm

Phase 5

Identifying real life samples of when such algorithm is used

Phase 6

We conclude which is the best situation and worst situation where the algorithm is applied.

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Thank You!