

# Group 2 Project Proposal

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**Abstract:** Group 2 proposes to study the convergence properties of simulated annealing, genetic algorithms, and ant-colony approaches towards finding optimal solutions for various travelling salesman problems. Code will be tested to find convergence rate, wall-clock time, and for solution space exploration. For future studies, we will consider looking at parallel and/or GPU solutions to accelerate algorithms.

## 0.1 Introduction

## 0.2 Simulated Annealing

## 0.3 Genetic Algorithms

## 0.4 Ant-Colony Approaches

## 0.5 Analysis