**“The Traveling Salesman Problem”**

**Assignment Report**

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**Introduction**

Travelling Salesman Problem (TSP) is one of the most popular problem in n computational mathematics. Not also mathematics, also the problem is popular in physics, computer science, supply chain and operation research. Hassler Whitney at Princeton University generated interest in the problem, which he called the "48 states problem". The earliest publication using the phrase "Travelling Salesman Problem" was the 1949 RAND Corporation report by Julia Robinson, "On the Hamiltonian game (a traveling salesman problem).

The problem consists of the salesman and set of destinations. The aim of the problem is basically that the salesman visits set of the destinations at once, starting specific city and returning the same destinations. To simply define, it is found the fastest and shortest route to the stops on the salesman's list. In the past, it was only the seller's problem, but today there are many people who face this problem in its modern form.

With the increasing popularity of online shopping because of the coronavirus and the unpredictable increase in consumption, customers find door-to-door deliveries easier and more efficient.

Why travelling salesman is important? All we know, time is money and irretrievable. If it involves multiple locations, we have to find ways which are more efficient and shorter. Believe or not, there are million or more unique ways or possible destinations. So why, choosing best way is very hard and it makes travelling salesman problem important. Of course, although this means money for businesses, it also reduces our carbon footprint. Additionally, the solving of travelling salesman problem provides increasing reliability of the customers. Basically, travelling salesman problem effects customer experience.

Our project is based on the Traveling Salesman Problem, which many refer to as the "Traveling Salesman Problem". TSP tries to achieve İrem's goal of visiting 4 different cities during the summer vacation. The goal is to travel around cities in the shortest possible distance in the most efficient way possible. İrem will set off from İzmir and go to Bursa, Eskişehir, Antalya and Balıkkesir, return to İzmir where she set off.

**Method**

We want to solve this problem by using Heuristic Nearest Neighbor with Hamiltonian Circuit. One of the strategy for solving the travelling salesman problem is nearest neighbor method. We will solve this problem with Excel.

**harita içeren bir resim

Açıklama otomatik olarak oluşturuldu**