Final Project Proposal

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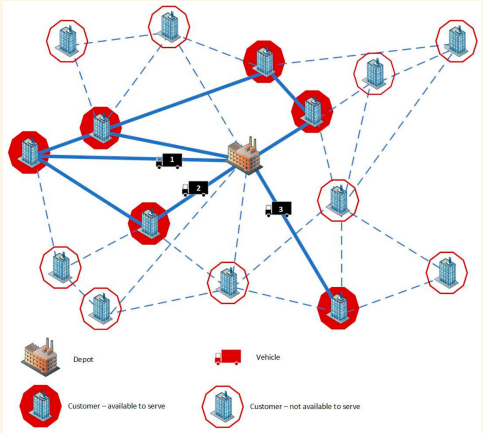
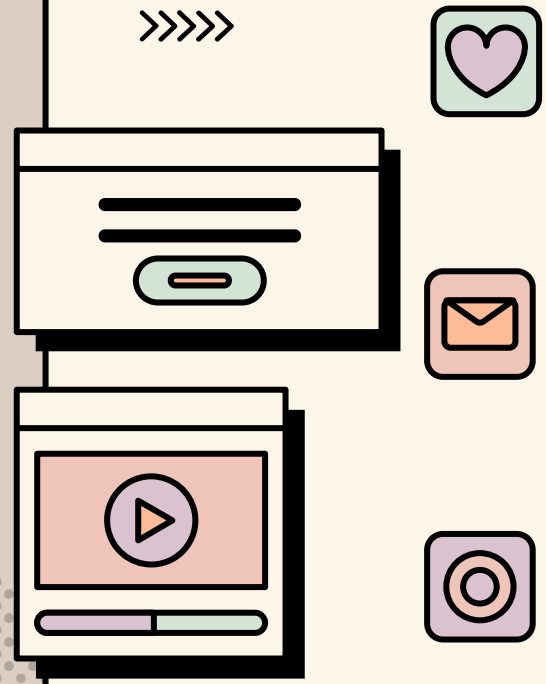
Vehicle Routing Problem

- NP - hard problem
- determine the **optimal set of routes** for a fleet of vehicles to deliver goods to a given set of customers
- **minimizing the total route cost**.



What we plan to do?



Problem Decomposition

Divide and Conquer & subproblem

Parallelism & Speedup

Genetic algorithms & Thread libraries

Optimize performance

Shared data structures & Parameter tuning

Bibliography/Resources

https://en.wikipedia.org/wiki/Vehicle_routing_problem#:~:text=The%20vehicle%20routing%20problem%20(VRP,travelling%20salesman%20problem%20(TSP).

https://epubs.siam.org/doi/book/10.1137/1.9780898718515

https://conundra.eu/blog/the-vehicle-routing-problem-explained

https://trace.tennessee.edu/cgi/viewcontent.cgi?article=6358&context=utk_gradthes



Thanks!

Any question?