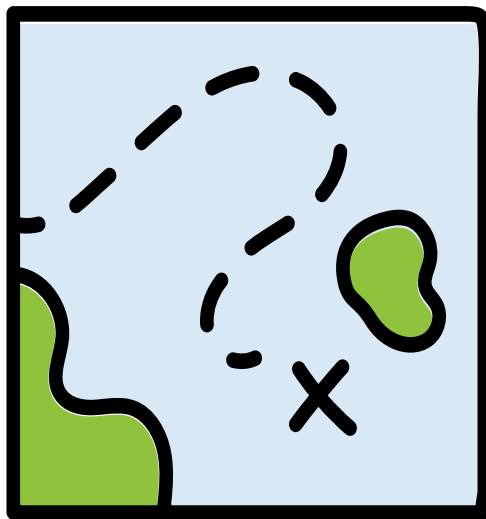


# ALGORITHMS VS ZOMBIES



Learn cool algorithms by fighting zombies



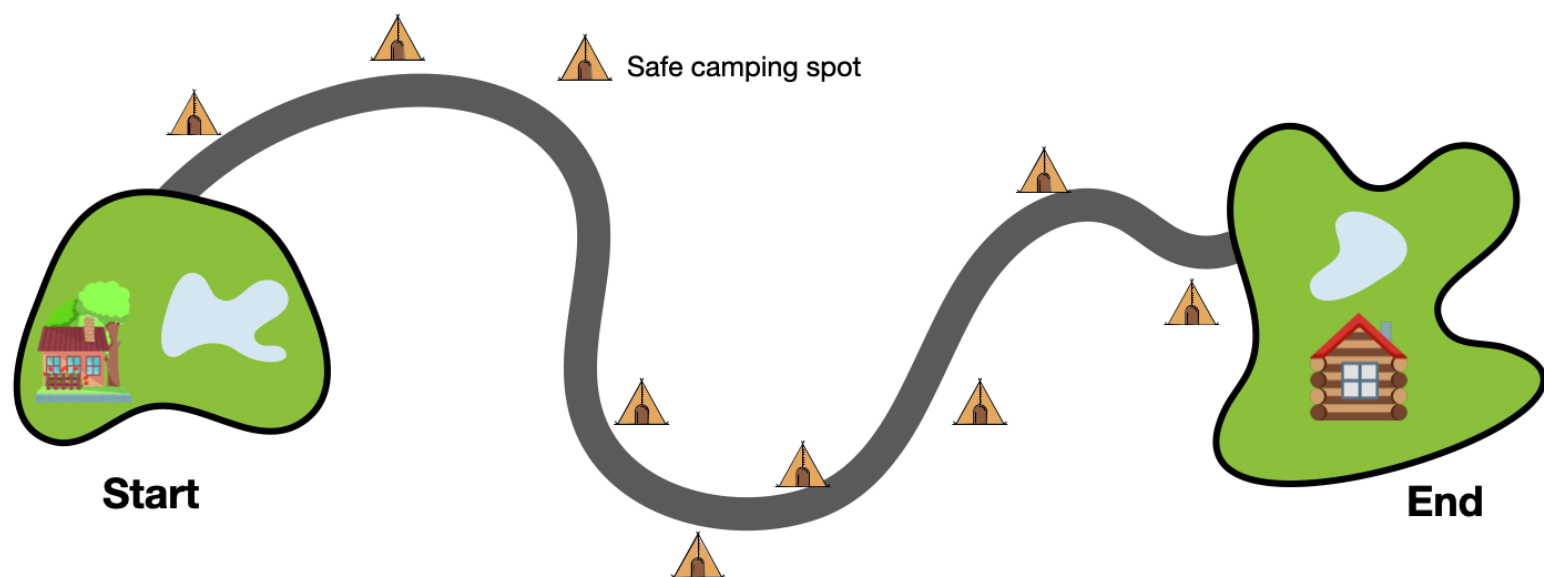
# *Hello, there*

Zombies have overrun the world. Algorithms vs Zombies is a chronicle of how we fight them using algorithms. Join us in this journey.



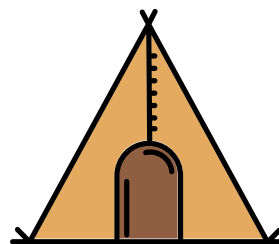
# Problem 1: Hiking in a zombie infested forest

In the zombie apocalypse, we need to frequently walk between two camps. We have a map of locations that are safe for camping for the night, as shown in the figure below.



The goal is to go to the destination from the starting with the shortest number of stops while spending no time traveling during the night as zombies come out in larger numbers at night.

*Safe camping spot*



We can travel a maximum of **d** miles per day. We have a map of the safe camping spots and we know the distance between them.

The distance between any two camps is less than  $d$  and the first and last camps are less than  $d$  miles from the start and goal point.

We could stop at each and every point on the way, that way we could avoid any travel during the night, but this will increase the number of stops, putting us at risk of attacks from zombies.