TDT4136 Assignment 2

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Part 1:

Task 1

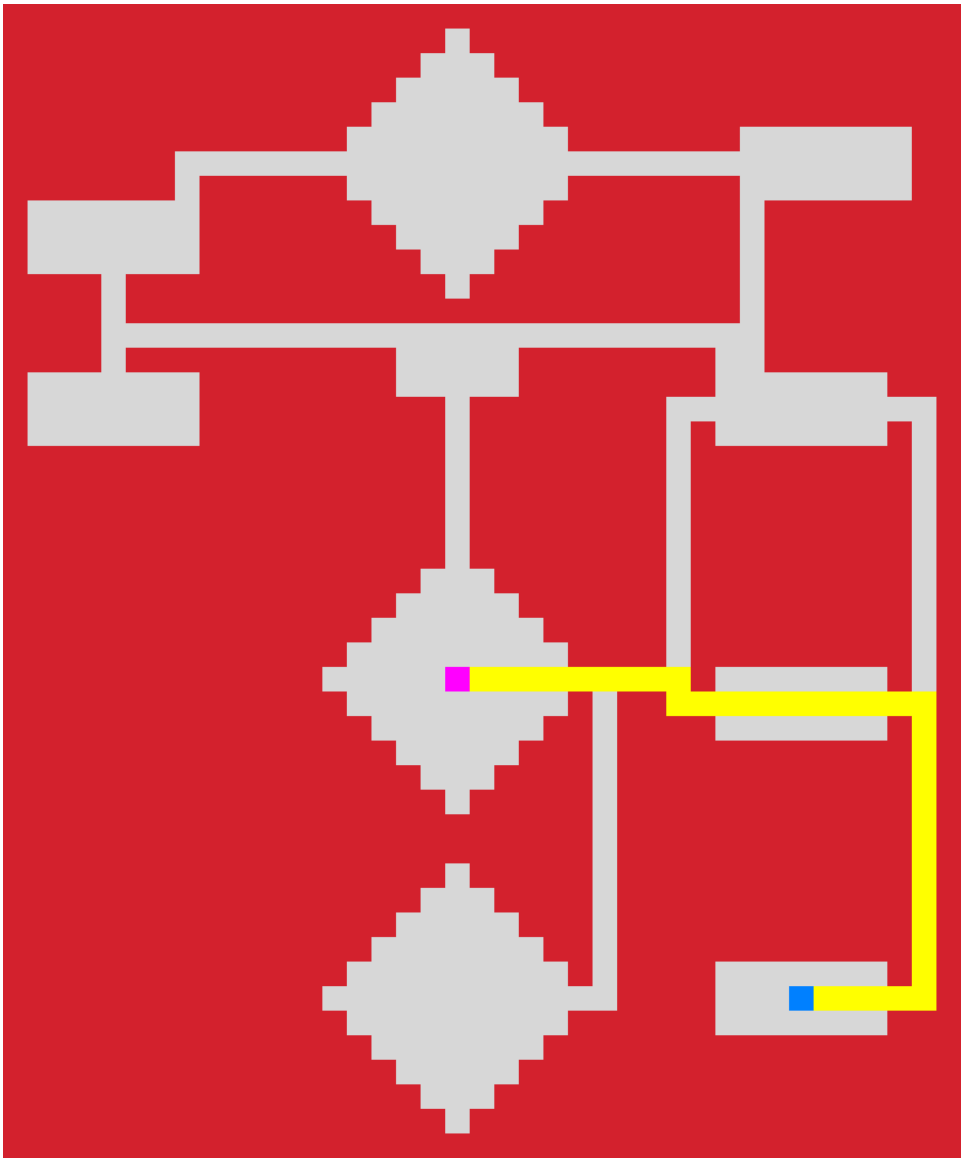

Figure 1: Task 1

Shortest path from **Rundhallen** to **Strossa**. The heuristic function used is euclidean (*Using euclidean and Manhattan distance gave the same result for all tasks except task 2*).

Task2

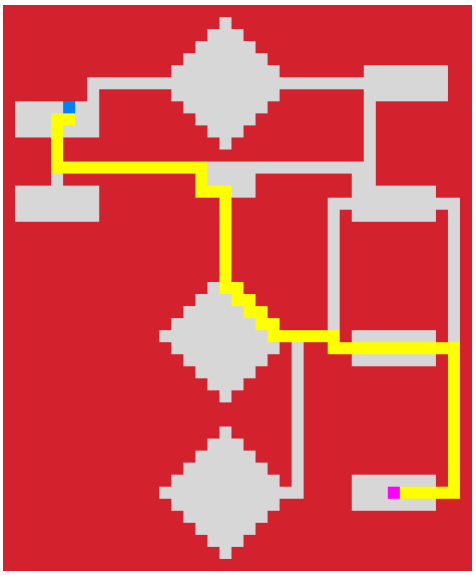

Figure 2: Task 2 using euclidean distance as heuristic function

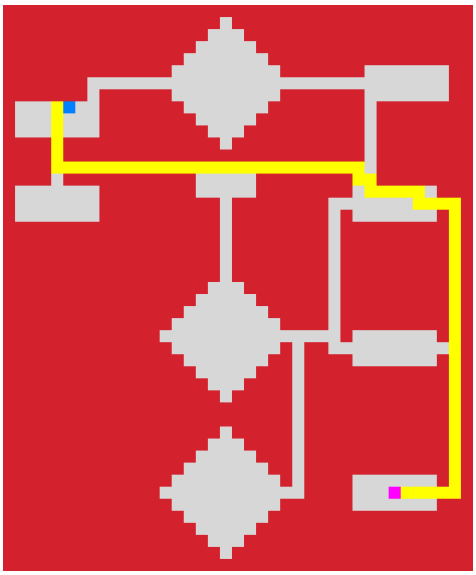

Figure 3: Task 2 using Manhattan distance as heuristic function

The shortest path from **Strossa** to **Selskapssiden**. As we can see, using two different heuristic functions leaves us with different result. I find the results to make sense, as the euclidean heuristic function uses the distance from point 1 to point 2 directly, whilst the manhattan distance uses number of tiles in each direction.

Part 2:

Task 3

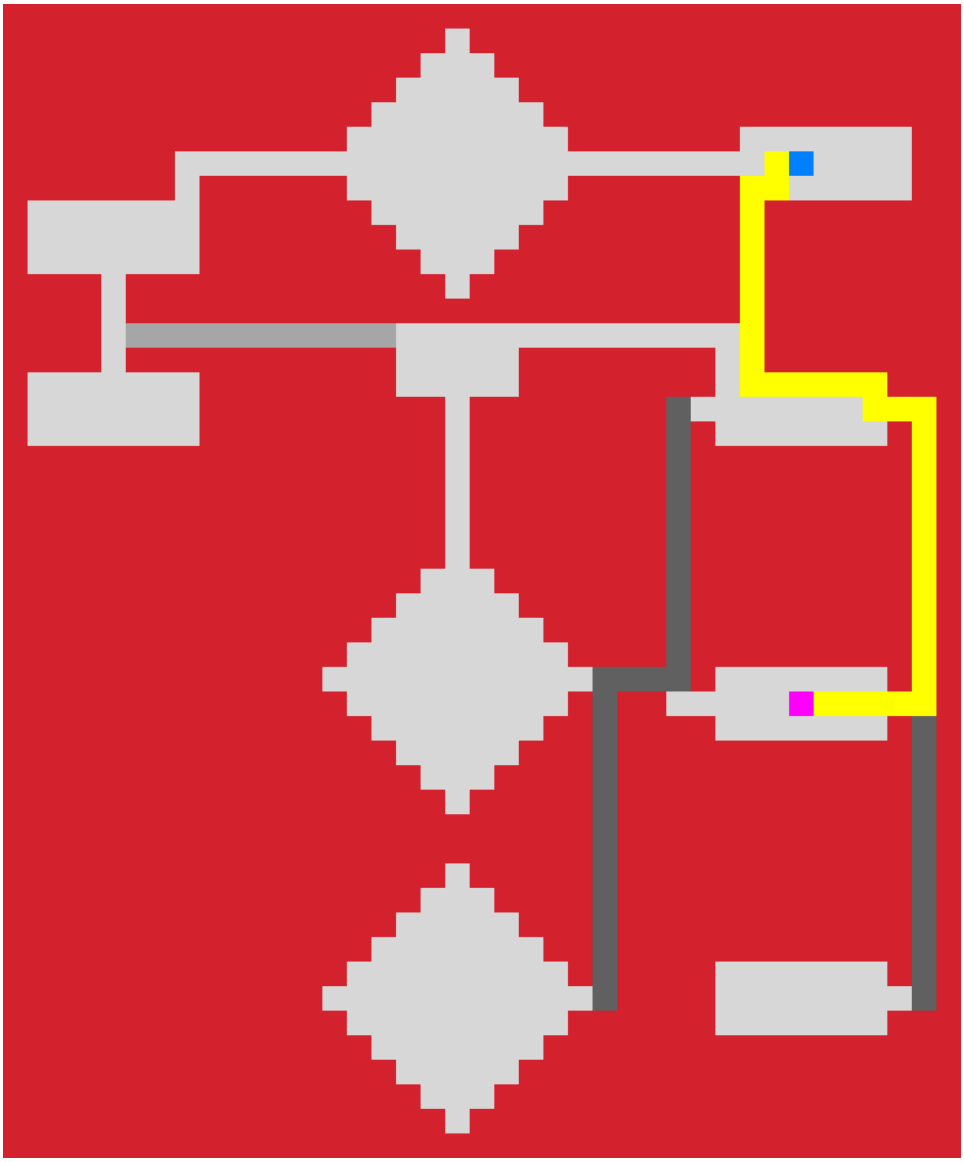

Figure 4: Task 3

The path from **Lyche** to **Klubben** with the least cost, following the costs stated in Table 1 in the assignment sheet.

Task 4

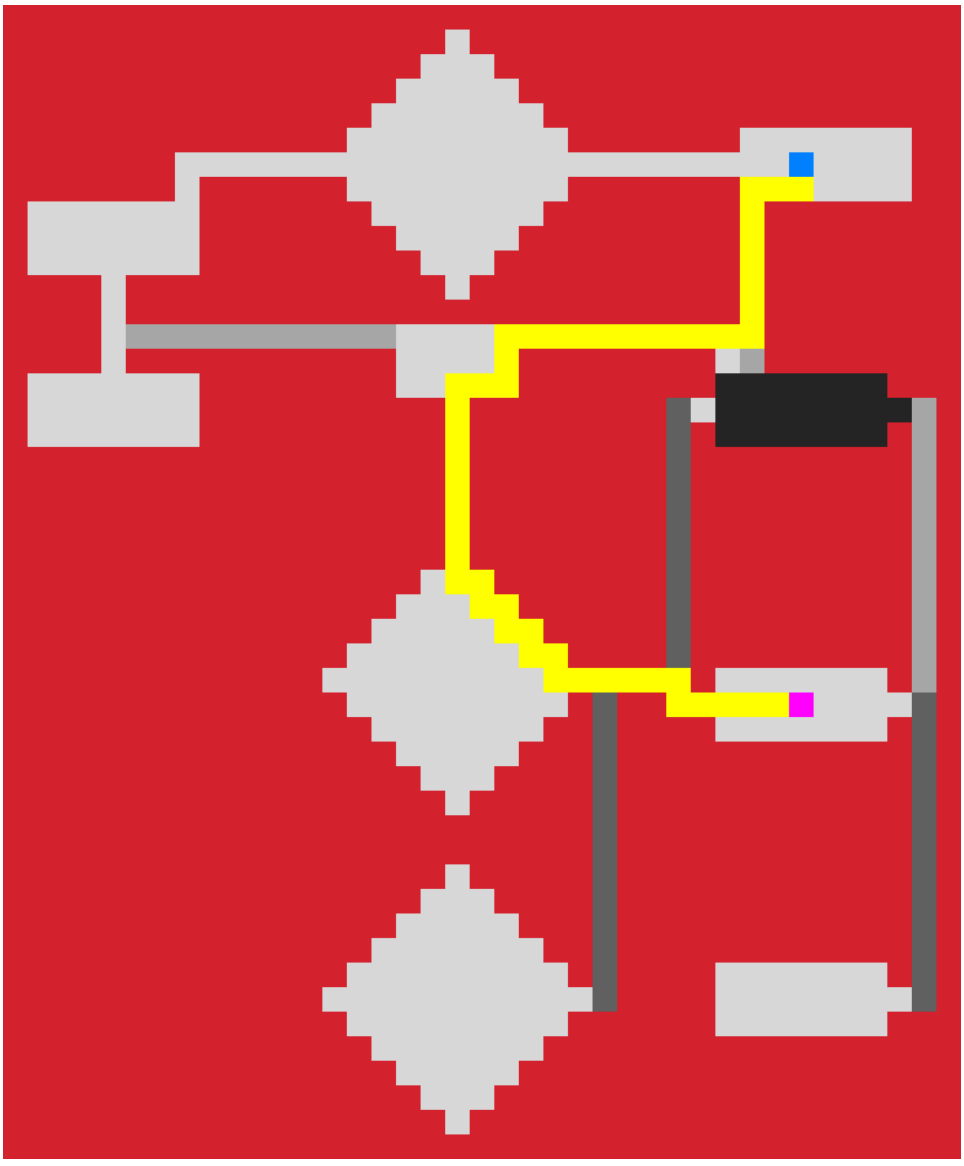

Figure 5: Task 4

Least-cost path from **Lyche** to **Klubben** considering a cake party with a crowded room at **Edgar**.