

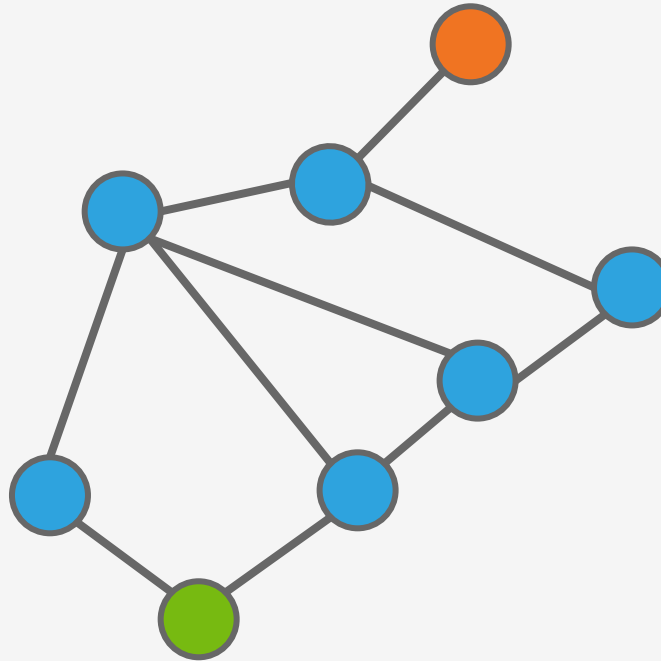
The background features a light yellow horizontal band across the top. Below it, a faint, stylized illustration of a robotic arm is visible. The arm is shown in three different positions, each holding a block. The first position is on the left, holding a red block with the number '1'. The second position is in the center, holding a red block with the word 'REAL' and the number '3'. The third position is on the right, holding a red block with the number '3'. In the foreground, there are several other blocks: a red block with the number '2' on a circular base, a blue block with the word 'HELLO', and another blue block with the word 'WORLD'. At the bottom left, there is a logo consisting of a grid of dots followed by the letters 'ROS'.

3.4.1

## Path planning

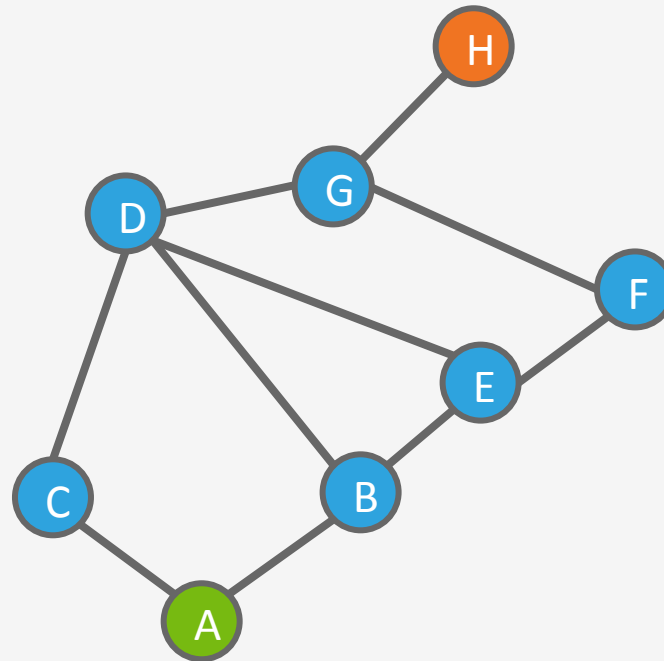
# Topological representation

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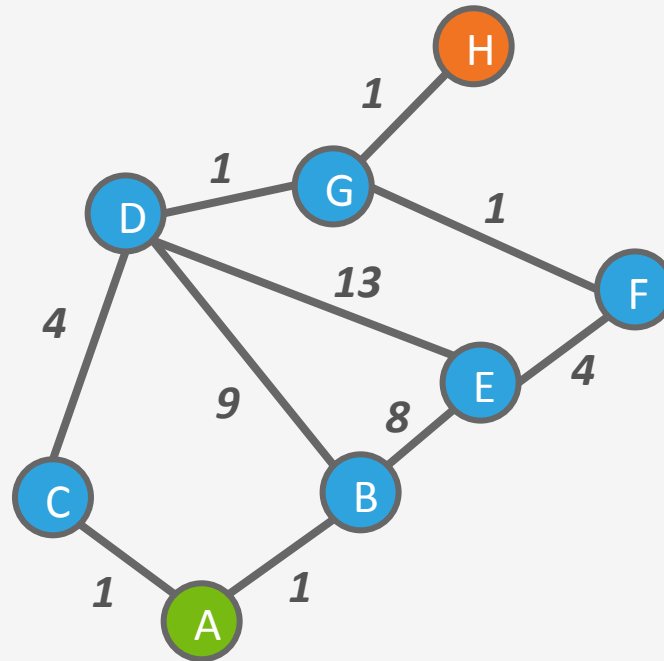
# Topological representation

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# Topological representation

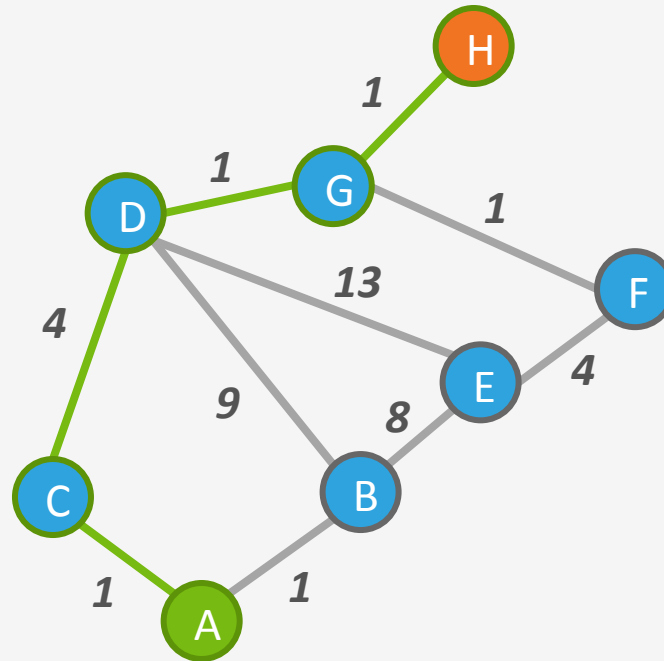
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**Distance-based**

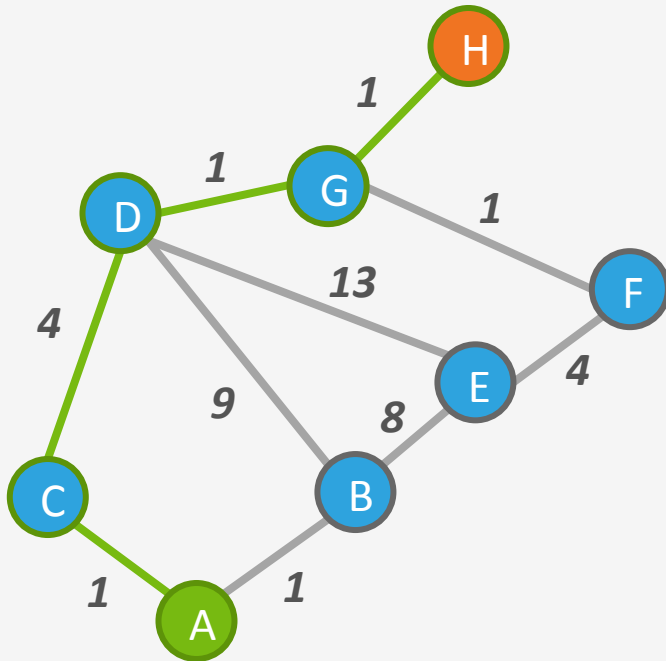
ACDGH is lowest cost

# Topological representation

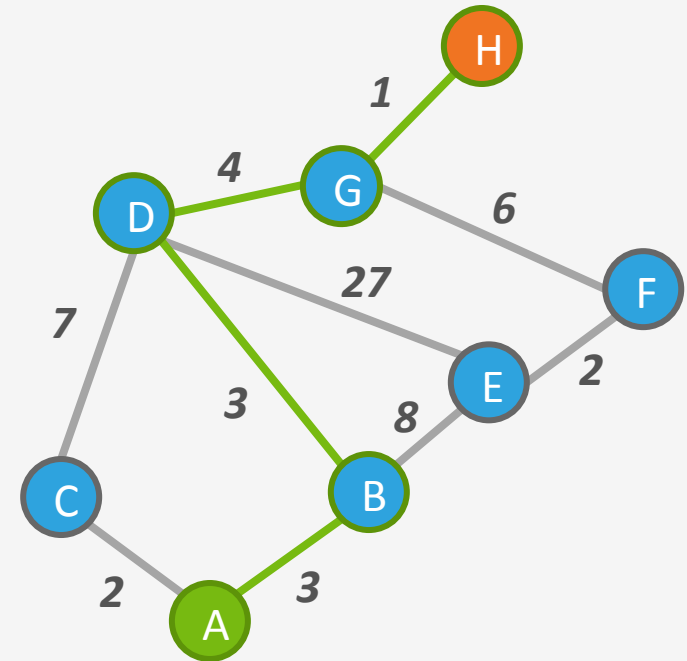


**Distance-based**  
*ACDGH* is lowest cost

# Topological representation



**Distance-based**  
*ACDGH* is lowest cost



**Time-based**  
*ABDGH* is lowest cost