Sample Problems

Testing Your Code

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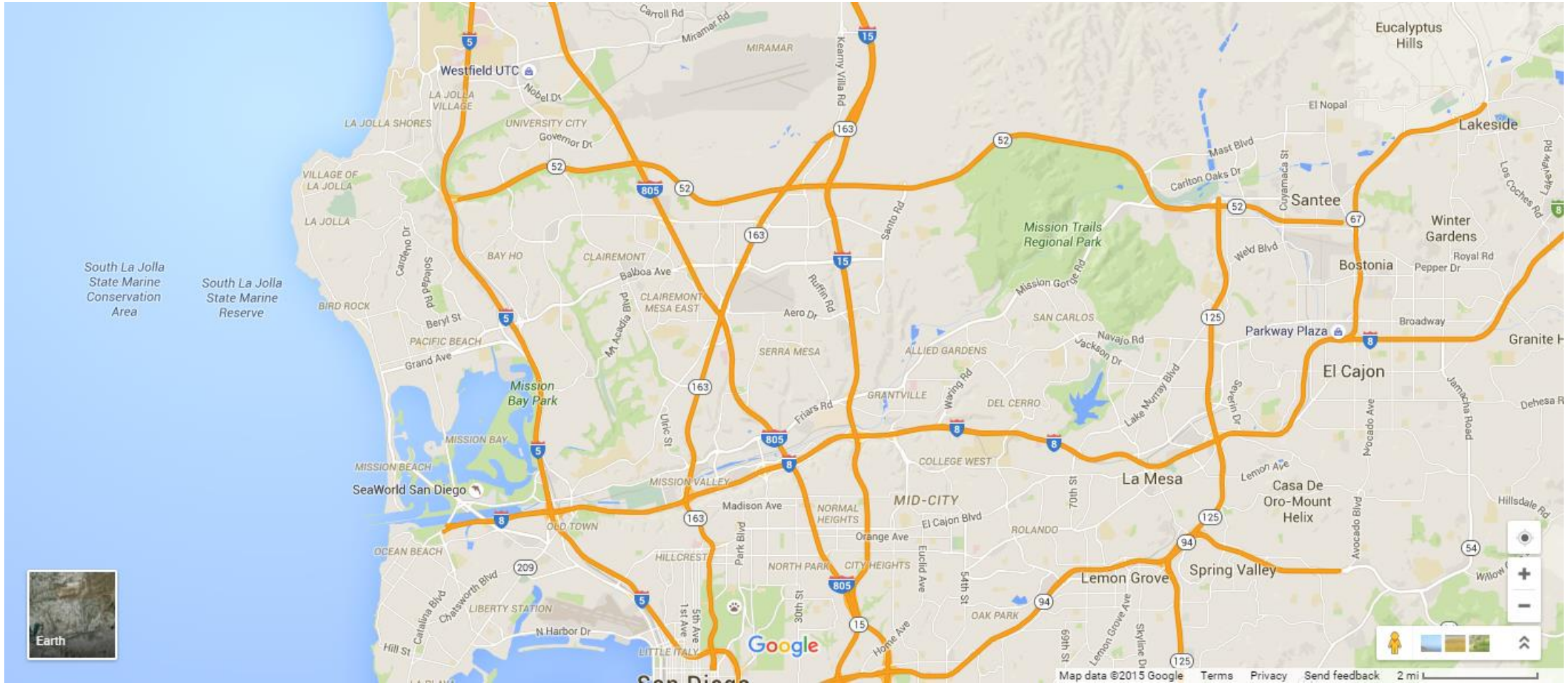
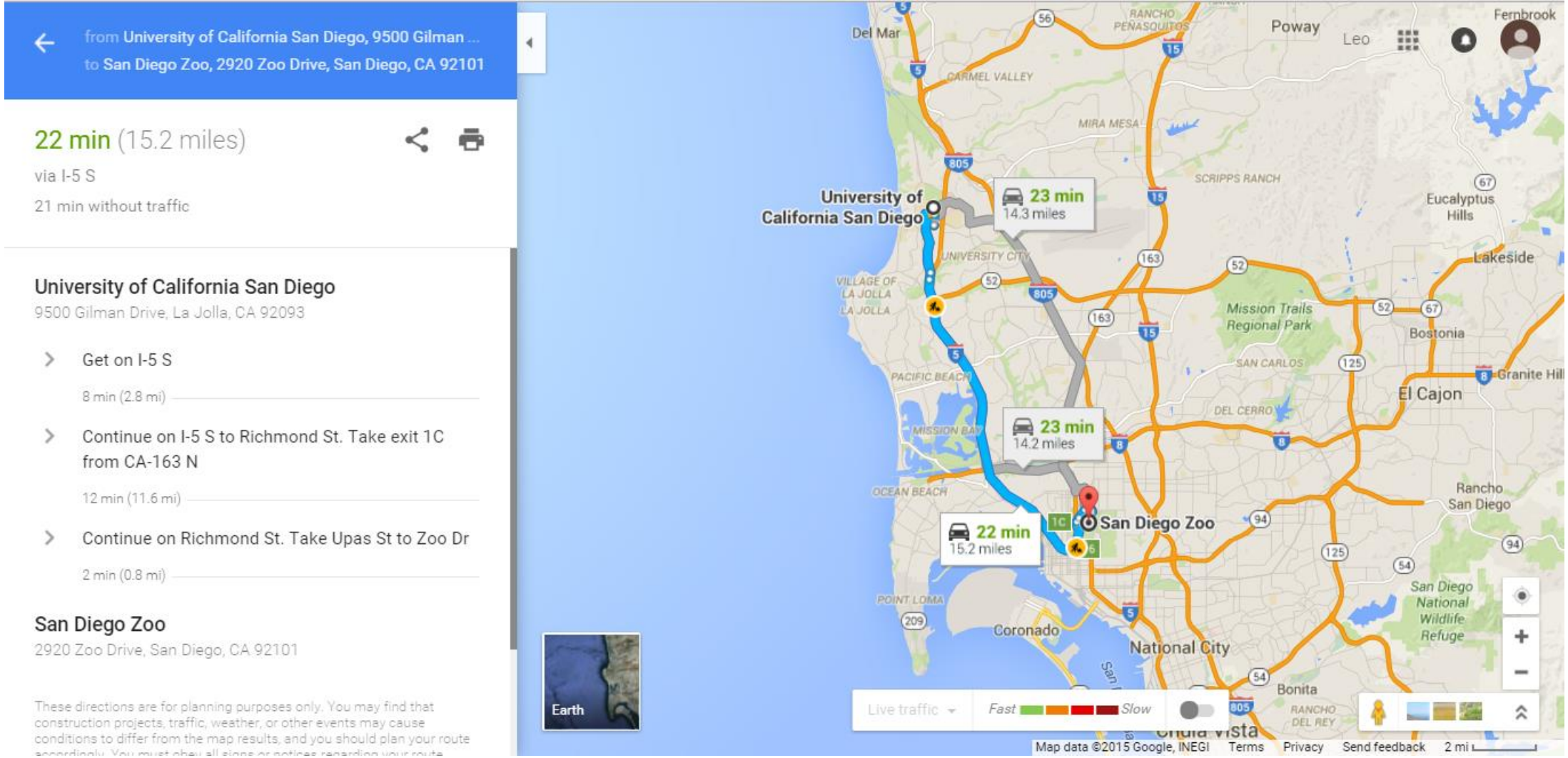
By the end of this video you will be able to…

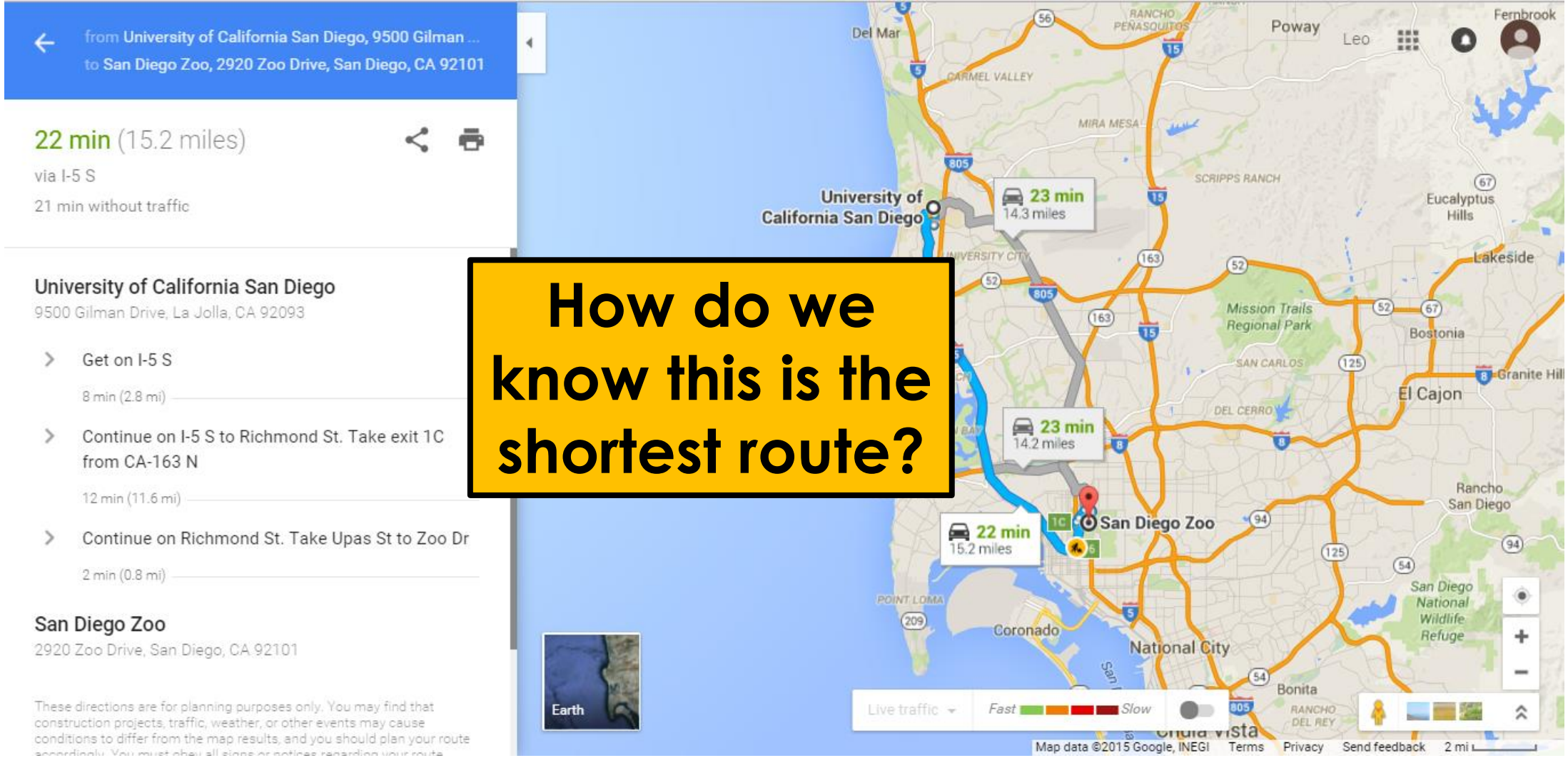
- Devise small examples to test your code



www.google.com/maps

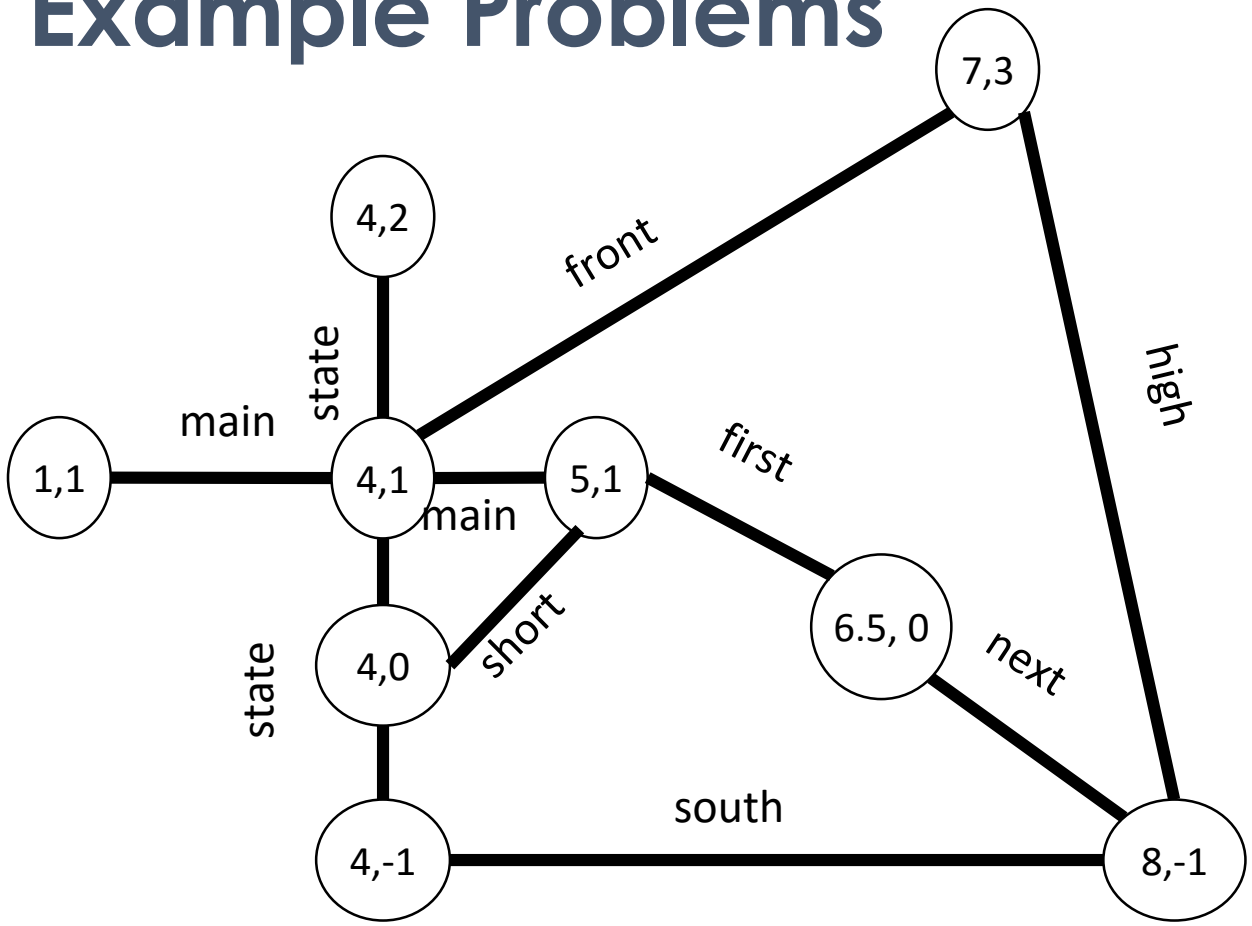


www.google.com/maps



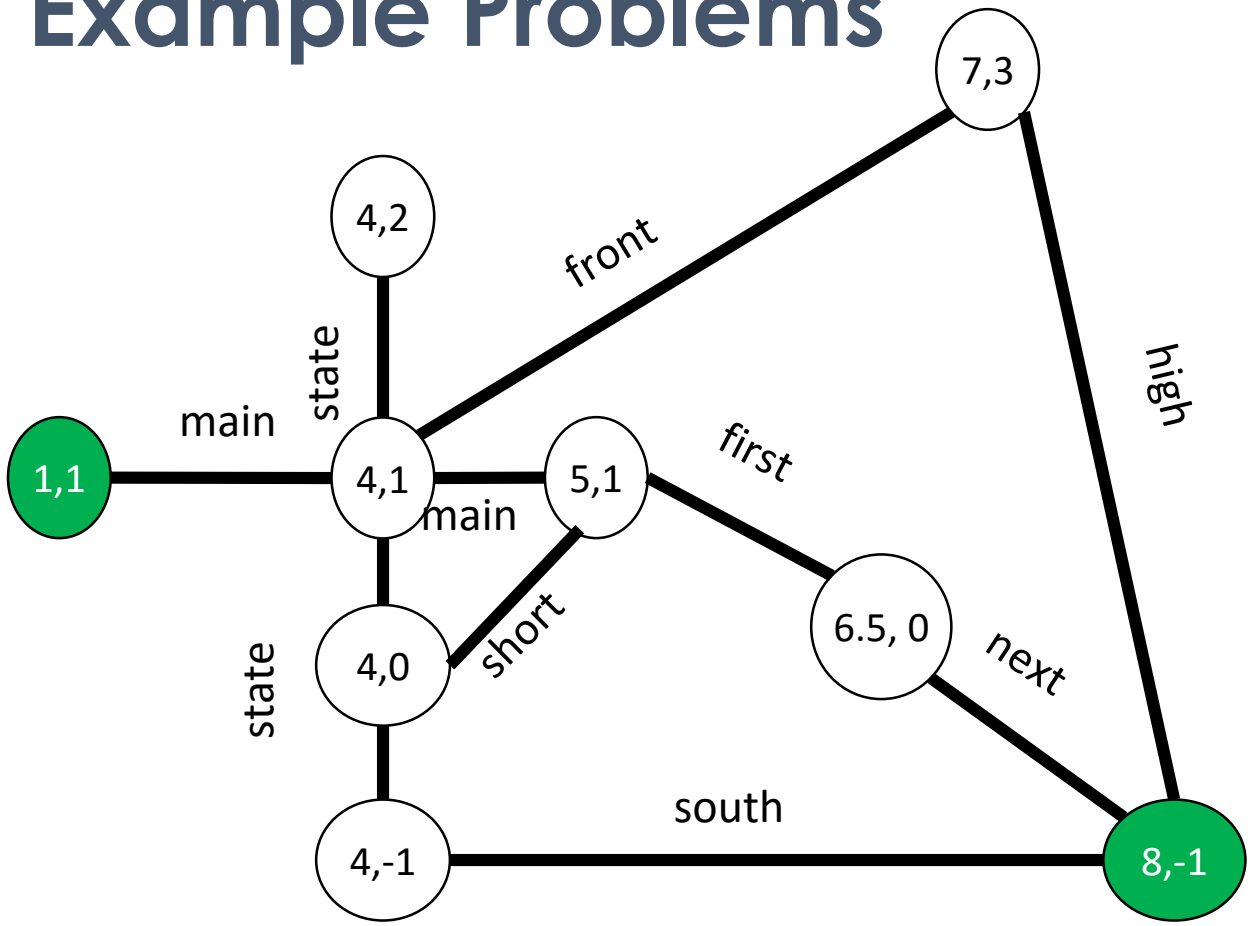
www.google.com/maps

Example Problems

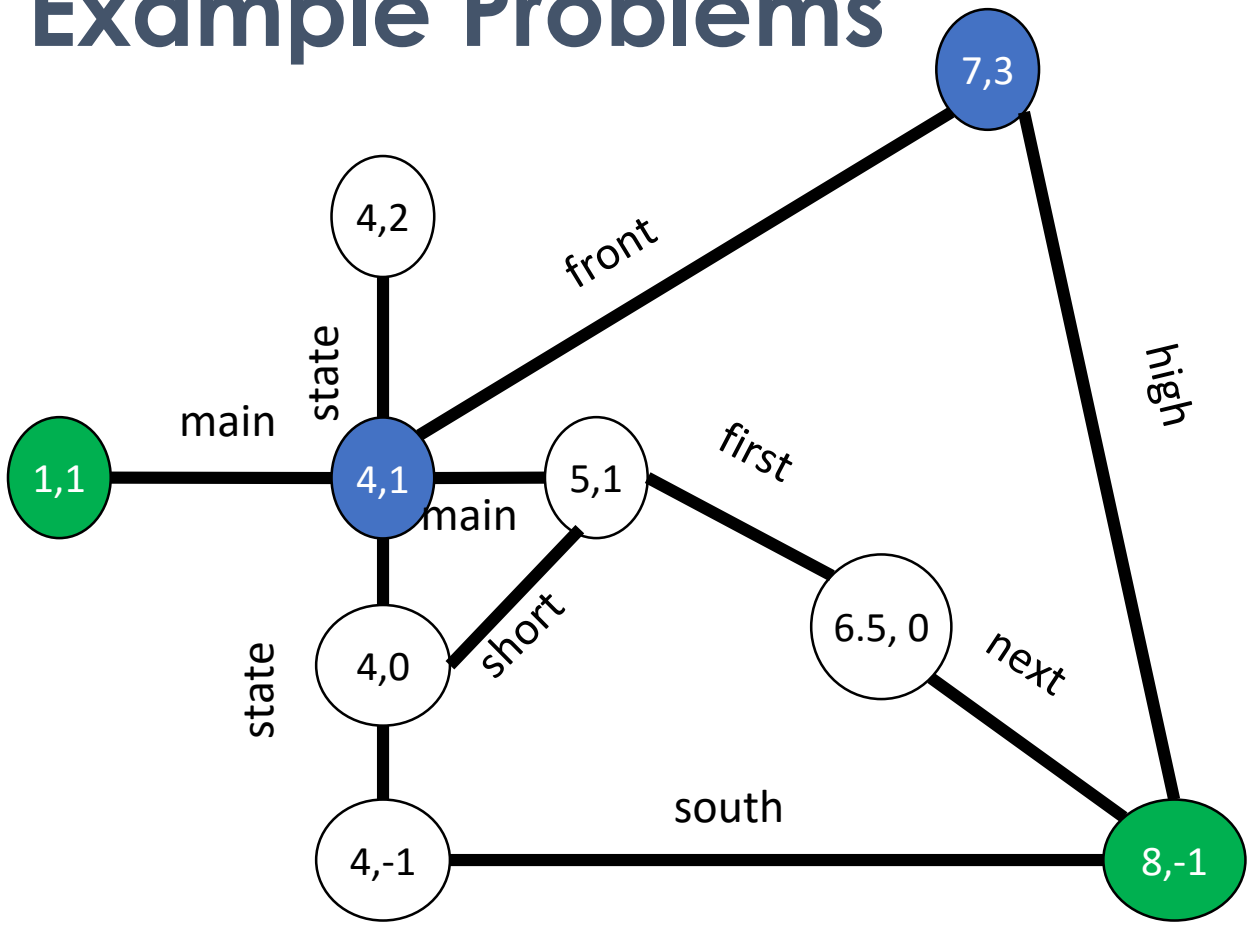


Example Problems

Fewest stops (BFS)



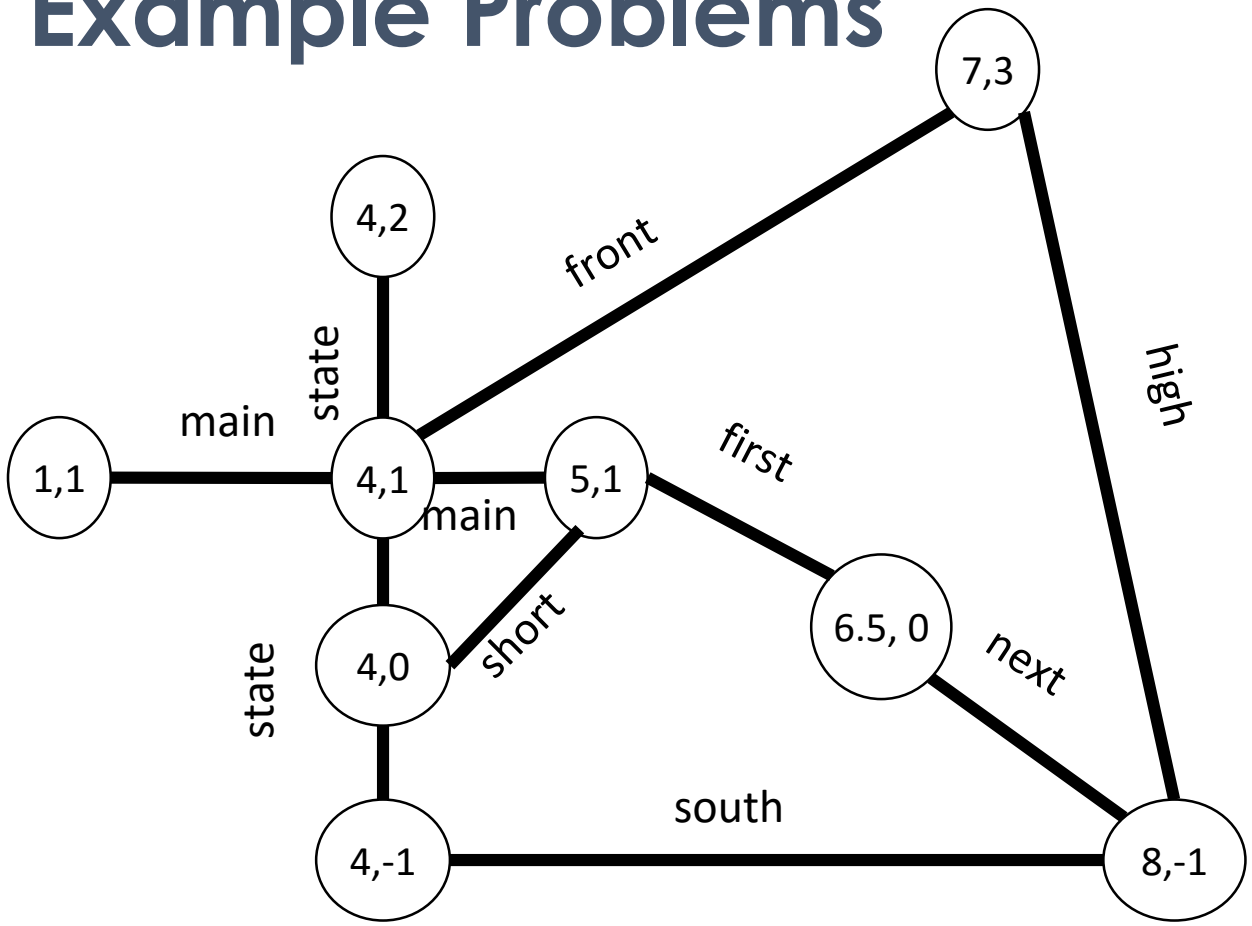
Example Problems



Fewest stops (BFS)

(1,1) → (4,1) → (7,3) → (8,-1)

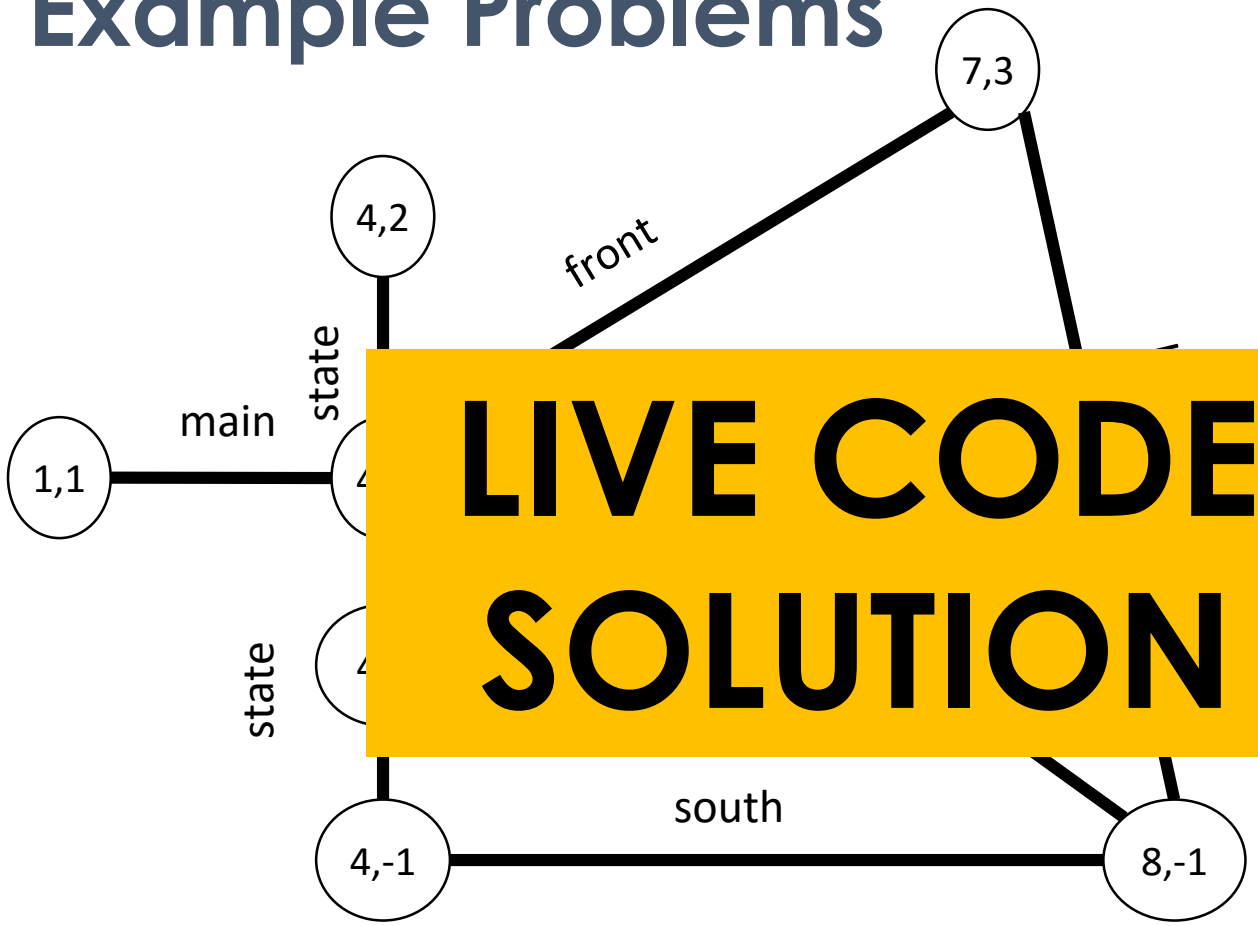
Example Problems




```
1.0 1.0 4.0 1.0 "main" "city street"
4.0 1.0 4.0 2.0 "state" "city street"
4.0 1.0 4.0 0.0 "state" "city street"
4.0 1.0 5.0 1.0 "main" "city street"
4.0 1.0 7.0 3.0 "front" "city street"
4.0 0.0 4.0 -1.0 "state" "city street"
4.0 0.0 5.0 1.0 "short" "connector"
7.0 3.0 8.0 -1.0 "high" "residential"
8.0 -1.0 4.0 -1.0 "south" "residential"
5.0 1.0 6.5 0.0 "first" "residential"
6.5 0.0 8.0 -1.0 "next" "residential"
```

data/simpletest.map

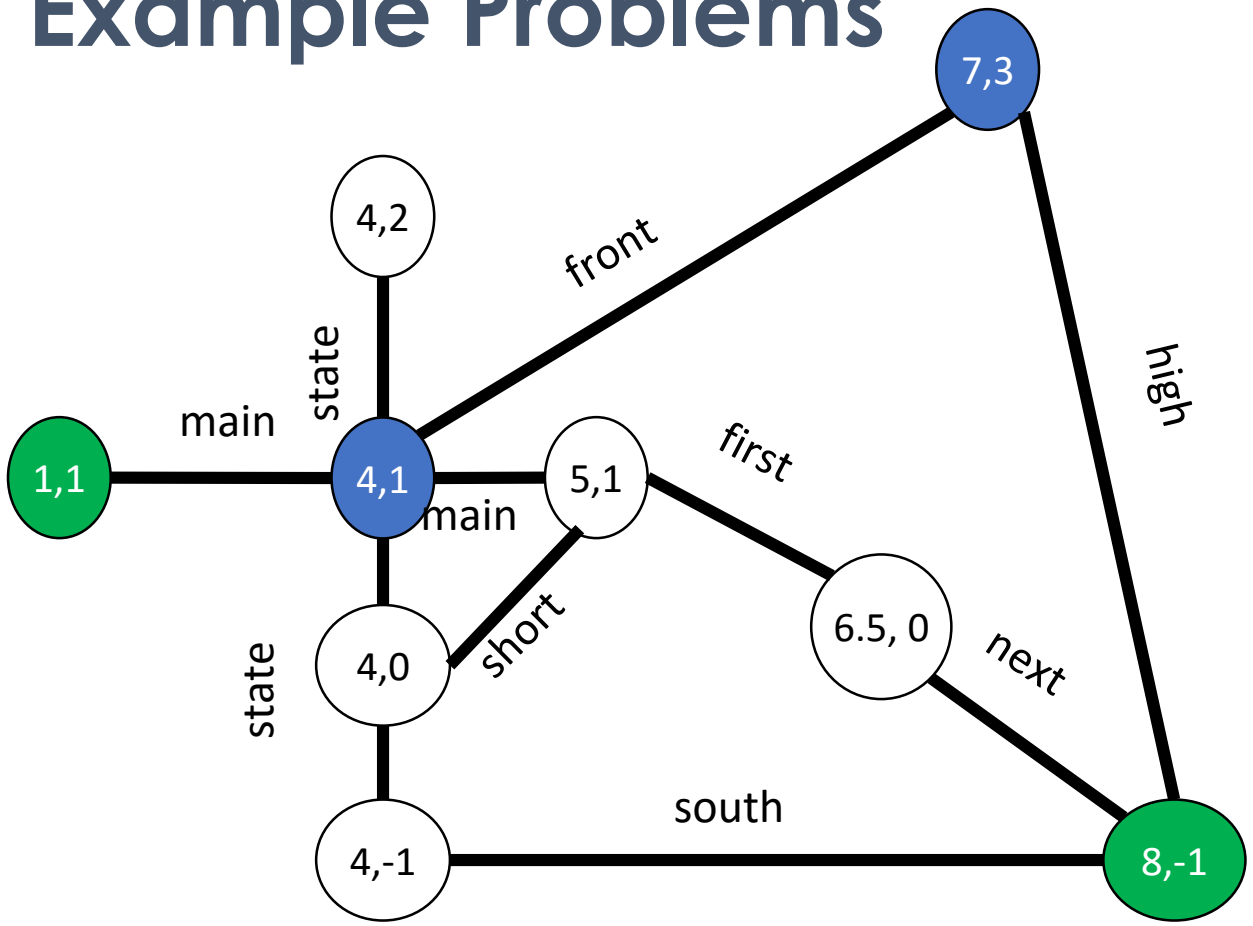
Example Problems



LIVE CODE SOLUTION

```
1.0 1.0 4.0 1.0 "main" "city street"
4.0 1.0 4.0 2.0 "state" "city street"
4.0 1.0 4.0 0.0 "state" "city street"
4.0 1.0 5.0 1.0 "main" "city street"
4.0 1.0 7.0 3.0 "front" "city street"
4.0 0.0 4.0 -1.0 "state" "city street"
.0 0.0 5.0 1.0 "short" "connector"
.0 3.0 8.0 -1.0 "high" "residential"
.0 -1.0 4.0 -1.0 "south" "residential"
.0 1.0 6.5 0.0 "first" "residential"
.5 0.0 8.0 -1.0 "next" "residential"
```

Example Problems



Fewest stops (BFS)

(1,1) → (4,1) → (7,3) → (8,-1)

```
Run BFS on
simpletest.map
[Lat: 1.0, Lon: 1.0,
Lat: 4.0, Lon: 1.0,
Lat: 7.0, Lon: 3.0,
Lat: 8.0, Lon: -1.0]
```

Generating Test Cases

start lat	start lon	end lat	end lon	street name	streetType
1.0	1.0	4.0	1.0	"main"	"city street"
4.0	1.0	1.0	1.0	"main"	"city street"
…					

Generating Test Cases

start lat	start lon	end lat	end lon	street name	streetType
1.0	1.0	4.0	1.0	"main"	"city street"
4.0	1.0	1.0	1.0	"main"	"city street"
…					

I encourage you to do this on your own