Factual explanation:

Passenger location: 1

Passenger destination: 3

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|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 3

State Path: 427, 427, 447, 347, 327

Loss function value: -0.453504301774571

Action path: EAST, NORTH, WEST

Statement: Given that in state 427 the agent chose NORTH in what state would it chose EAST?   
In state 327:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 3

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 3

State Path: 467, 467, 487, 387, 367, 467, 487, 387, 287, 267

Loss function value: -0.6296424917956052

Action path: EAST, NORTH, WEST, SOUTH, EAST, NORTH, NORTH, WEST

Statement: Given that in state 467 the agent chose NORTH in what state would it chose EAST?   
In state 267:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 276, 276, 296, 396, 376, 276, 296, 196, 96, 76, 176, 156

Loss function value: -0.8325410378051504

Action path: EAST, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, WEST, SOUTH, WEST

Statement: Given that in state 276 the agent chose WEST in what state would it chose SOUTH?   
In state 156:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 276, 276, 296, 196, 176, 156, 256, 276, 376

Loss function value: -0.4835724641679189

Action path: EAST, NORTH, WEST, WEST, SOUTH, EAST, SOUTH

Statement: Given that in state 276 the agent chose WEST in what state would it chose NORTH?   
In state 376:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 186, 186, 166, 146, 246, 226, 126

Loss function value: -0.7678405528516743

Action path: WEST, WEST, SOUTH, WEST, NORTH

Statement: Given that in state 186 the agent chose NORTH in what state would it chose SOUTH?   
In state 126:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 186, 186, 86, 66, 166, 186, 86, 66, 166, 146, 46, 66, 86, 98

Loss function value: -0.9873794008726626

Action path: NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, WEST, NORTH, EAST, EAST, PICKUP

Statement: Given that in state 186 the agent chose NORTH in what state would it chose WEST?   
In state 98 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 318, 318, 218, 118, 18, 38, 138, 118, 18, 38, 138, 238, 338

Loss function value: -0.45321344813233244

Action path: NORTH, NORTH, NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, SOUTH, SOUTH

Statement: Given that in state 318 the agent chose SOUTH in what state would it chose NORTH?   
In state 338:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 0

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 372, 372, 272, 292, 392, 372, 272, 252, 352

Loss function value: -0.4692592705072512

Action path: NORTH, EAST, SOUTH, WEST, NORTH, WEST, SOUTH

Statement: Given that in state 372 the agent chose SOUTH in what state would it chose NORTH?   
In state 352:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 0

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|R: | : :G|

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| : : : : |

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 372, 372, 392, 292, 272, 372, 392, 492, 472, 372, 272, 252

Loss function value: -0.777655418485568

Action path: EAST, NORTH, WEST, SOUTH, EAST, SOUTH, WEST, NORTH, NORTH, WEST

Statement: Given that in state 372 the agent chose SOUTH in what state would it chose EAST?   
In state 252:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 66, 66, 166, 266, 246, 346, 326, 226, 126

Loss function value: -0.878711377324465

Action path: SOUTH, SOUTH, WEST, SOUTH, WEST, NORTH, NORTH

Statement: Given that in state 66 the agent chose EAST in what state would it chose SOUTH?   
In state 126:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

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| : : : : |

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 66, 66, 46, 146, 166, 186, 86, 98

Loss function value: -1.0764674276534516

Action path: WEST, SOUTH, EAST, EAST, NORTH, PICKUP

Statement: Given that in state 66 the agent chose EAST in what state would it chose WEST?   
In state 98 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

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| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 0

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 0

State Path: 388, 388, 368, 268, 288, 388, 488, 468, 368, 268, 288, 188

Loss function value: -0.653652390197046

Action path: WEST, NORTH, EAST, SOUTH, SOUTH, WEST, NORTH, NORTH, EAST, NORTH

Statement: Given that in state 388 the agent chose NORTH in what state would it chose SOUTH?   
In state 188:

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|R: | : :G|

| : | : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 0

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 0

State Path: 388, 388, 288

Loss function value: -0.47637524527792047

Action path: NORTH

Statement: Given that in state 388 the agent chose NORTH in what state would it chose WEST?   
In state 288:

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|R: | : :G|

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 194, 194, 294, 394, 494, 474, 374, 394, 294, 194, 94, 74, 174, 194, 94, 74, 174, 154, 254, 354

Loss function value: -1.0013871357666977

Action path: SOUTH, SOUTH, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, WEST, SOUTH, SOUTH

Statement: Given that in state 194 the agent chose SOUTH in what state would it chose NORTH?   
In state 354:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 194, 194, 294

Loss function value: -0.46148534411111775

Action path: SOUTH

Statement: Given that in state 194 the agent chose SOUTH in what state would it chose WEST?   
In state 294:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 119, 119, 139

Loss function value: -0.4316447889455

Action path: EAST

Statement: Given that in state 119 the agent chose EAST in what state would it chose SOUTH?   
In state 139:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 119, 119, 19, 39, 139, 239, 219, 319

Loss function value: -0.6022170504134551

Action path: NORTH, EAST, SOUTH, SOUTH, WEST, SOUTH

Statement: Given that in state 119 the agent chose EAST in what state would it chose NORTH?   
In state 319:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

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| : : : : |

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 337, 337, 437, 457, 357, 337, 437, 457, 357, 337, 437, 457, 357, 337, 437, 457, 357, 337, 237, 137

Loss function value: -0.6465913416492532

Action path: SOUTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, WEST, NORTH, NORTH

Statement: Given that in state 337 the agent chose NORTH in what state would it chose SOUTH?   
In state 137:

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|R: | : :G|

| : | : : |

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 337, 337, 437, 457, 357, 337, 237

Loss function value: -0.45056042967788207

Action path: SOUTH, EAST, NORTH, WEST, NORTH

Statement: Given that in state 337 the agent chose NORTH in what state would it chose EAST?   
In state 237:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 101, 101, 201, 221, 241, 141

Loss function value: -0.581546427779035

Action path: SOUTH, EAST, EAST, NORTH

Statement: Given that in state 101 the agent chose NORTH in what state would it chose SOUTH?   
In state 141:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 101, 101, 201, 221, 121, 21, 1, 17

Loss function value: -1.1934628474198037

Action path: SOUTH, EAST, NORTH, NORTH, WEST, PICKUP

Statement: Given that in state 101 the agent chose NORTH in what state would it chose EAST?   
In state 17 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 152, 152, 52, 72, 172, 272, 252, 352

Loss function value: -0.6574241084509813

Action path: NORTH, EAST, SOUTH, SOUTH, WEST, SOUTH

Statement: Given that in state 152 the agent chose SOUTH in what state would it chose NORTH?   
In state 352:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 152, 152, 172, 192, 92, 72, 172, 272, 252

Loss function value: -0.48876126150076327

Action path: EAST, EAST, NORTH, WEST, SOUTH, SOUTH, WEST

Statement: Given that in state 152 the agent chose SOUTH in what state would it chose EAST?   
In state 252:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 178, 178, 78, 98, 198, 178, 78, 98, 198, 178, 158

Loss function value: -0.49429862814302594

Action path: NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, WEST

Statement: Given that in state 178 the agent chose WEST in what state would it chose SOUTH?   
In state 158:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 178, 178, 198, 298, 278, 378

Loss function value: -0.6050423772915557

Action path: EAST, SOUTH, WEST, SOUTH

Statement: Given that in state 178 the agent chose WEST in what state would it chose NORTH?   
In state 378:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 2

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 0

State Path: 308, 308, 208, 108, 128, 228, 248, 348, 328

Loss function value: -0.4932513238170819

Action path: NORTH, NORTH, EAST, SOUTH, EAST, SOUTH, WEST

Statement: Given that in state 308 the agent chose SOUTH in what state would it chose NORTH?   
In state 328:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 286, 286, 386, 486, 466, 366, 386, 286, 266, 246, 226, 126

Loss function value: -1.0905085043137648

Action path: SOUTH, SOUTH, WEST, NORTH, EAST, NORTH, WEST, WEST, WEST, NORTH

Statement: Given that in state 286 the agent chose NORTH in what state would it chose SOUTH?   
In state 126:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 286, 286, 386, 366, 266, 286, 386, 486, 466, 366, 266, 286, 186, 86, 98

Loss function value: -1.087564224407571

Action path: SOUTH, WEST, NORTH, EAST, SOUTH, SOUTH, WEST, NORTH, NORTH, EAST, NORTH, NORTH, PICKUP

Statement: Given that in state 286 the agent chose NORTH in what state would it chose WEST?   
In state 98 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 397, 397, 297, 197, 97, 77, 177, 197, 297, 397, 377, 477, 497, 397, 297, 197, 97, 77, 57

Loss function value: -1.0211190024722228

Action path: NORTH, NORTH, NORTH, WEST, SOUTH, EAST, SOUTH, SOUTH, WEST, SOUTH, EAST, NORTH, NORTH, NORTH, NORTH, WEST, WEST

Statement: Given that in state 397 the agent chose NORTH in what state would it chose SOUTH?   
In state 57:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 16, 16, 116, 216, 236, 336, 436, 456, 356, 256, 156

Loss function value: -0.9595257881838871

Action path: SOUTH, SOUTH, EAST, SOUTH, SOUTH, EAST, NORTH, NORTH, NORTH

Statement: Given that in state 16 the agent chose DROPOFF in what state would it chose SOUTH?   
In state 156:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 1

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 0

State Path: 284, 284, 264, 244, 144, 164, 264, 244, 224, 124

Loss function value: -1.119671096763721

Action path: WEST, WEST, NORTH, EAST, SOUTH, WEST, WEST, NORTH

Statement: Given that in state 284 the agent chose NORTH in what state would it chose SOUTH?   
In state 124:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 284, 284, 384, 484, 464, 364, 384, 284, 184, 164, 264, 284, 184, 84, 96

Loss function value: -1.0958767314002693

Action path: SOUTH, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, WEST, SOUTH, EAST, NORTH, NORTH, PICKUP

Statement: Given that in state 284 the agent chose NORTH in what state would it chose WEST?   
In state 96 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

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| : : : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 2

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 277, 277, 297, 397, 377, 277, 297, 197, 177, 157, 57

Loss function value: -0.8955734641665031

Action path: EAST, SOUTH, WEST, NORTH, EAST, NORTH, WEST, WEST, NORTH

Statement: Given that in state 277 the agent chose EAST in what state would it chose SOUTH?   
In state 57:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 277, 277, 297

Loss function value: -0.4198974709417593

Action path: EAST

Statement: Given that in state 277 the agent chose EAST in what state would it chose NORTH?   
In state 297:

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|R: | : :G|

| : | : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 3

State Path: 7, 7, 107

Loss function value: -0.48357739433774866

Action path: SOUTH

Statement: Given that in state 7 the agent chose SOUTH in what state would it chose EAST?   
In state 107:

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|R: | : :G|

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| : : : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 1

State Path: 149, 149, 249, 269, 169, 149, 49, 69, 169, 269, 369

Loss function value: -0.8967870470385412

Action path: SOUTH, EAST, NORTH, WEST, NORTH, EAST, SOUTH, SOUTH, SOUTH

Statement: Given that in state 149 the agent chose SOUTH in what state would it chose NORTH?   
In state 369:

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|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 1

State Path: 293, 293, 193

Loss function value: -0.4421621380899875

Action path: NORTH

Statement: Given that in state 293 the agent chose WEST in what state would it chose SOUTH?   
In state 193:

+---------+

|R: | : :G|

| : | : : |

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 1

State Path: 293, 293, 393, 493, 473, 373, 393, 293, 193, 173, 273, 253, 353

Loss function value: -0.89051971066834

Action path: SOUTH, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, WEST, SOUTH, WEST, SOUTH

Statement: Given that in state 293 the agent chose WEST in what state would it chose NORTH?   
In state 353:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 62, 62, 42, 142, 162

Loss function value: -0.42468262842878207

Action path: WEST, SOUTH, EAST

Statement: Given that in state 62 the agent chose SOUTH in what state would it chose WEST?   
In state 162:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 3

State Path: 223, 223, 323, 423, 443, 343, 323, 223, 203, 103, 123, 223, 243, 143

Loss function value: -0.8181313972739563

Action path: SOUTH, SOUTH, EAST, NORTH, WEST, NORTH, WEST, NORTH, EAST, SOUTH, EAST, NORTH

Statement: Given that in state 223 the agent chose WEST in what state would it chose SOUTH?   
In state 143:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 3

State Path: 223, 223, 203

Loss function value: -0.44570660775665094

Action path: WEST

Statement: Given that in state 223 the agent chose WEST in what state would it chose NORTH?   
In state 203:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 223, 223, 323, 343, 243, 223, 203, 103, 3, 19

Loss function value: -1.6468804829451988

Action path: SOUTH, EAST, NORTH, WEST, WEST, NORTH, NORTH, PICKUP

Statement: Given that in state 223 the agent chose WEST in what state would it chose EAST?   
In state 19 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 3

State Path: 123, 123, 103, 203, 223, 323, 343, 243, 143

Loss function value: -0.46393847858746007

Action path: WEST, SOUTH, EAST, SOUTH, EAST, NORTH, NORTH

Statement: Given that in state 123 the agent chose WEST in what state would it chose SOUTH?   
In state 143:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 3

State Path: 123, 123, 103

Loss function value: -0.44477017654772855

Action path: WEST

Statement: Given that in state 123 the agent chose WEST in what state would it chose NORTH?   
In state 103:

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|R: | : :G|

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 0

State Path: 44, 44, 144, 244, 344, 324, 224, 204, 104, 4, 24

Loss function value: -0.4458753902178041

Action path: SOUTH, SOUTH, SOUTH, WEST, NORTH, WEST, NORTH, NORTH, EAST

Statement: Given that in state 44 the agent chose EAST in what state would it chose SOUTH?   
In state 24:

+---------+

|R: | : :G|

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| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 3

State Path: 327, 327, 347, 247, 227, 327, 427, 447, 347, 327, 427, 447, 347, 327, 227, 127

Loss function value: -0.6472307979495122

Action path: EAST, NORTH, WEST, SOUTH, SOUTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, WEST, NORTH, NORTH

Statement: Given that in state 327 the agent chose EAST in what state would it chose SOUTH?   
In state 127:

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|R: | : :G|

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 3

State Path: 327, 327, 347

Loss function value: -0.44788398313603484

Action path: EAST

Statement: Given that in state 327 the agent chose EAST in what state would it chose NORTH?   
In state 347:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 211, 211, 231, 251, 351, 331

Loss function value: -0.7987728436303443

Action path: EAST, EAST, SOUTH, WEST

Statement: Given that in state 211 the agent chose SOUTH in what state would it chose NORTH?   
In state 331:

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 211, 211, 231, 251, 351, 331, 231, 211, 311, 411, 419, 319, 219

Loss function value: -0.7317262257557333

Action path: EAST, EAST, SOUTH, WEST, NORTH, WEST, SOUTH, SOUTH, PICKUP, NORTH, NORTH

Statement: Given that in state 211 the agent chose SOUTH in what state would it chose EAST?   
In state 219 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 326, 326, 346, 446, 426, 326, 226, 126

Loss function value: -0.6551752300932314

Action path: EAST, SOUTH, WEST, NORTH, NORTH, NORTH

Statement: Given that in state 326 the agent chose EAST in what state would it chose SOUTH?   
In state 126:

+---------+

|R: | : :G|

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| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 326, 326, 346

Loss function value: -0.4739025243016863

Action path: EAST

Statement: Given that in state 326 the agent chose EAST in what state would it chose NORTH?   
In state 346:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 1

State Path: 369, 369, 389, 289, 269, 369, 469, 489, 389, 369, 269, 249, 149

Loss function value: -0.9294312519350406

Action path: EAST, NORTH, WEST, SOUTH, SOUTH, EAST, NORTH, WEST, NORTH, WEST, NORTH

Statement: Given that in state 369 the agent chose NORTH in what state would it chose SOUTH?   
In state 149:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 98, 98, 198, 298, 278, 178, 78, 98, 198, 178, 78, 58

Loss function value: -0.685677446880081

Action path: SOUTH, SOUTH, WEST, NORTH, NORTH, EAST, SOUTH, WEST, NORTH, WEST

Statement: Given that in state 98 the agent chose WEST in what state would it chose SOUTH?   
In state 58:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 398, 398, 298, 198, 98, 78, 178, 198, 298, 398, 378, 478, 498, 398, 298, 198, 178, 158

Loss function value: -0.9069965999380085

Action path: NORTH, NORTH, NORTH, WEST, SOUTH, EAST, SOUTH, SOUTH, WEST, SOUTH, EAST, NORTH, NORTH, NORTH, WEST, WEST

Statement: Given that in state 398 the agent chose NORTH in what state would it chose SOUTH?   
In state 158:

+---------+

|R: | : :G|

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 398, 398, 298

Loss function value: -0.41277920500026316

Action path: NORTH

Statement: Given that in state 398 the agent chose NORTH in what state would it chose WEST?   
In state 298:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 357, 357, 457, 437, 337, 357, 457, 437, 337, 357, 257, 277, 177, 157, 57

Loss function value: -0.7755584617893574

Action path: SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, NORTH, EAST, NORTH, WEST, NORTH

Statement: Given that in state 357 the agent chose NORTH in what state would it chose SOUTH?   
In state 57:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 3

State Path: 267, 267, 287, 387, 367, 267, 247, 227, 127

Loss function value: -0.9143118800544336

Action path: EAST, SOUTH, WEST, NORTH, WEST, WEST, NORTH

Statement: Given that in state 267 the agent chose EAST in what state would it chose SOUTH?   
In state 127:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 3

State Path: 267, 267, 367

Loss function value: -0.4692395695835068

Action path: SOUTH

Statement: Given that in state 267 the agent chose EAST in what state would it chose NORTH?   
In state 367:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 267, 267, 287, 387, 367, 267, 287, 187, 87, 99

Loss function value: -1.4512124396974997

Action path: EAST, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, PICKUP

Statement: Given that in state 267 the agent chose EAST in what state would it chose WEST?   
In state 99 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 499, 499, 399, 299, 199, 99, 79, 179, 199, 99, 79, 179, 159, 259, 359

Loss function value: -0.7455343110119452

Action path: NORTH, NORTH, NORTH, NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, WEST, SOUTH, SOUTH

Statement: Given that in state 499 the agent chose WEST in what state would it chose NORTH?   
In state 359:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 316, 316, 216, 236, 336, 356, 256, 156

Loss function value: -1.078672839054997

Action path: NORTH, EAST, SOUTH, EAST, NORTH, NORTH

Statement: Given that in state 316 the agent chose NORTH in what state would it chose SOUTH?   
In state 156:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 374, 374, 274, 174, 74, 94, 194, 174, 274, 254, 354

Loss function value: -0.43613273745545844

Action path: NORTH, NORTH, NORTH, EAST, SOUTH, WEST, SOUTH, WEST, SOUTH

Statement: Given that in state 374 the agent chose SOUTH in what state would it chose NORTH?   
In state 354:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 374, 374, 274, 174, 194, 294, 394, 374, 274, 254

Loss function value: -0.7428041040698652

Action path: NORTH, NORTH, EAST, SOUTH, SOUTH, WEST, NORTH, WEST

Statement: Given that in state 374 the agent chose SOUTH in what state would it chose EAST?   
In state 254:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 299, 299, 199, 99, 79, 179, 279, 299, 199, 179, 159, 259, 359

Loss function value: -0.7821087162855047

Action path: NORTH, NORTH, WEST, SOUTH, SOUTH, EAST, NORTH, WEST, WEST, SOUTH, SOUTH

Statement: Given that in state 299 the agent chose SOUTH in what state would it chose NORTH?   
In state 359:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 299, 299, 279, 379, 399, 299, 279, 179, 199

Loss function value: -0.4485269868566468

Action path: WEST, SOUTH, EAST, NORTH, WEST, NORTH, EAST

Statement: Given that in state 299 the agent chose SOUTH in what state would it chose WEST?   
In state 199:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 67, 67, 47, 147, 167, 67, 87, 99, 79

Loss function value: -0.8171173297129983

Action path: WEST, SOUTH, EAST, NORTH, EAST, PICKUP, WEST

Statement: Given that in state 67 the agent chose EAST in what state would it chose SOUTH?   
In state 79 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 67, 67, 167, 147, 47, 67, 87, 99

Loss function value: -1.1485723993404136

Action path: SOUTH, WEST, NORTH, EAST, EAST, PICKUP

Statement: Given that in state 67 the agent chose EAST in what state would it chose WEST?   
In state 99 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 271, 271, 371, 471, 491, 391, 371, 271, 291, 191, 171, 71

Loss function value: -0.6164936190690862

Action path: SOUTH, SOUTH, EAST, NORTH, WEST, NORTH, EAST, NORTH, WEST, NORTH

Statement: Given that in state 271 the agent chose WEST in what state would it chose SOUTH?   
In state 71:

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|R: | : :G|

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 271, 271, 171, 71, 91, 191, 171, 271, 371

Loss function value: -0.44890727557259485

Action path: NORTH, NORTH, EAST, SOUTH, WEST, SOUTH, SOUTH

Statement: Given that in state 271 the agent chose WEST in what state would it chose NORTH?   
In state 371:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 271, 271, 251, 231, 211, 311, 411, 419, 319, 219

Loss function value: -1.175318908057336

Action path: WEST, WEST, WEST, SOUTH, SOUTH, PICKUP, NORTH, NORTH

Statement: Given that in state 271 the agent chose WEST in what state would it chose EAST?   
In state 219 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 3

State Path: 363, 363, 263, 163, 183, 283, 383, 363, 263, 163, 143

Loss function value: -0.9217764576648301

Action path: NORTH, NORTH, EAST, SOUTH, SOUTH, WEST, NORTH, NORTH, WEST

Statement: Given that in state 363 the agent chose NORTH in what state would it chose SOUTH?   
In state 143:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 381, 381, 361, 261, 281, 381, 361, 261, 281, 381, 361, 461, 481, 381, 281, 181

Loss function value: -0.6350296417796757

Action path: WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, SOUTH, EAST, NORTH, NORTH, NORTH

Statement: Given that in state 381 the agent chose WEST in what state would it chose SOUTH?   
In state 181:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 381, 381, 281, 181, 81, 61, 161, 181, 281, 261, 361

Loss function value: -0.4787450202084105

Action path: NORTH, NORTH, NORTH, WEST, SOUTH, EAST, SOUTH, WEST, SOUTH

Statement: Given that in state 381 the agent chose WEST in what state would it chose NORTH?   
In state 361:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 396, 396, 376, 276, 296, 196, 96, 76, 176, 156

Loss function value: -0.983555574021797

Action path: WEST, NORTH, EAST, NORTH, NORTH, WEST, SOUTH, WEST

Statement: Given that in state 396 the agent chose WEST in what state would it chose SOUTH?   
In state 156:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 396, 396, 496

Loss function value: -0.41945120680011305

Action path: SOUTH

Statement: Given that in state 396 the agent chose WEST in what state would it chose NORTH?   
In state 496:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

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| : : : : |

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 111, 111, 131, 231, 211, 111, 131, 231, 251, 351, 331

Loss function value: -0.8926019691234597

Action path: EAST, SOUTH, WEST, NORTH, EAST, SOUTH, EAST, SOUTH, WEST

Statement: Given that in state 111 the agent chose SOUTH in what state would it chose NORTH?   
In state 331:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 111, 111, 131, 231, 211, 111, 11, 31, 131, 111, 11, 31, 131, 111, 211, 311, 411, 419, 319, 219

Loss function value: -1.0540913406208832

Action path: EAST, SOUTH, WEST, NORTH, NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, SOUTH, SOUTH, SOUTH, PICKUP, NORTH, NORTH

Statement: Given that in state 111 the agent chose SOUTH in what state would it chose EAST?   
In state 219 where the passanger location is now In Taxi:

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|R: | : :G|

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| : : : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 241, 241, 261, 161, 141

Loss function value: -0.47621138196905705

Action path: EAST, NORTH, WEST

Statement: Given that in state 241 the agent chose WEST in what state would it chose SOUTH?   
In state 141:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 241, 241, 261, 281, 181, 81, 61, 41, 141, 241, 341

Loss function value: -0.4667885486540792

Action path: EAST, EAST, NORTH, NORTH, WEST, WEST, SOUTH, SOUTH, SOUTH

Statement: Given that in state 241 the agent chose WEST in what state would it chose NORTH?   
In state 341:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 241, 241, 341, 441, 421, 321, 341, 241, 221, 201, 101, 1, 17

Loss function value: -1.6535187224987105

Action path: SOUTH, SOUTH, WEST, NORTH, EAST, NORTH, WEST, WEST, NORTH, NORTH, PICKUP

Statement: Given that in state 241 the agent chose WEST in what state would it chose EAST?   
In state 17 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 117, 117, 217, 317

Loss function value: -0.6130146595033444

Action path: SOUTH, SOUTH

Statement: Given that in state 117 the agent chose SOUTH in what state would it chose NORTH?   
In state 317:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 117, 117, 217

Loss function value: -0.49509500090404207

Action path: SOUTH

Statement: Given that in state 117 the agent chose SOUTH in what state would it chose EAST?   
In state 217:

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|R: | : :G|

| : | : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 97, 97, 77, 57

Loss function value: -0.6606694332154188

Action path: WEST, WEST

Statement: Given that in state 97 the agent chose DROPOFF in what state would it chose SOUTH?   
In state 57:

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|R: | : :G|

| : | : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target WEST

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 1

State Path: 409, 409, 309, 209, 109, 9, 29, 129, 229, 249, 349, 449, 429

Loss function value: -0.504492024334671

Action path: NORTH, NORTH, NORTH, NORTH, EAST, SOUTH, SOUTH, EAST, SOUTH, SOUTH, WEST

Statement: Given that in state 409 the agent chose PICKUP in what state would it chose NORTH?   
In state 429:

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|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 41, 41, 141, 241, 221, 201, 101, 1, 17

Loss function value: -1.2762205855312045

Action path: SOUTH, SOUTH, WEST, WEST, NORTH, NORTH, PICKUP

Statement: Given that in state 41 the agent chose SOUTH in what state would it chose EAST?   
In state 17 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 3

State Path: 383, 383, 483, 463, 363, 383, 483, 463, 363, 383, 283, 183, 163, 263, 243, 143

Loss function value: -1.017374081084374

Action path: SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, WEST, SOUTH, WEST, NORTH

Statement: Given that in state 383 the agent chose NORTH in what state would it chose SOUTH?   
In state 143:

+---------+

|R: | : :G|

| : | : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 3

State Path: 383, 383, 283

Loss function value: -0.4459830691610822

Action path: NORTH

Statement: Given that in state 383 the agent chose NORTH in what state would it chose WEST?   
In state 283:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 447, 447, 347, 247, 147, 47, 67, 87, 99

Loss function value: -1.701100168614106

Action path: NORTH, NORTH, NORTH, NORTH, EAST, EAST, PICKUP

Statement: Given that in state 447 the agent chose NORTH in what state would it chose WEST?   
In state 99 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 231, 231, 211

Loss function value: -0.4744078092681947

Action path: WEST

Statement: Given that in state 231 the agent chose WEST in what state would it chose SOUTH?   
In state 211:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 231, 231, 131, 111, 211, 231, 331

Loss function value: -0.5009111283588572

Action path: NORTH, WEST, SOUTH, EAST, SOUTH

Statement: Given that in state 231 the agent chose WEST in what state would it chose NORTH?   
In state 331:

+---------+

|R: | : :G|

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 231, 231, 211, 311, 411, 419, 319, 219

Loss function value: -1.0317395830596348

Action path: WEST, SOUTH, SOUTH, PICKUP, NORTH, NORTH

Statement: Given that in state 231 the agent chose WEST in what state would it chose EAST?   
In state 219 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 221, 221, 321, 421, 441, 341, 321, 221, 241, 261, 161, 141

Loss function value: -0.7902900290440729

Action path: SOUTH, SOUTH, EAST, NORTH, WEST, NORTH, EAST, EAST, NORTH, WEST

Statement: Given that in state 221 the agent chose WEST in what state would it chose SOUTH?   
In state 141:

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 221, 221, 241, 261, 161, 141, 241, 221, 201

Loss function value: -0.444333300478283

Action path: EAST, EAST, NORTH, WEST, SOUTH, WEST, WEST

Statement: Given that in state 221 the agent chose WEST in what state would it chose NORTH?   
In state 201:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 221, 221, 321, 421, 441, 341, 241, 221, 121, 21, 1, 17

Loss function value: -1.5708613372571893

Action path: SOUTH, SOUTH, EAST, NORTH, NORTH, WEST, NORTH, NORTH, WEST, PICKUP

Statement: Given that in state 221 the agent chose WEST in what state would it chose EAST?   
In state 17 where the passanger location is now In Taxi:

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|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 341, 341, 441, 421, 321, 341, 441, 421, 321, 341, 441, 421, 321, 341, 441, 421, 321, 341, 241, 141

Loss function value: -0.652386423348849

Action path: SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, NORTH, NORTH

Statement: Given that in state 341 the agent chose NORTH in what state would it chose SOUTH?   
In state 141:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 341, 341, 241

Loss function value: -0.44437025578248035

Action path: NORTH

Statement: Given that in state 341 the agent chose NORTH in what state would it chose WEST?   
In state 241:

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|R: | : :G|

| : | : : |

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 6, 6, 26, 126, 106, 6, 26, 126, 106, 206

Loss function value: -0.5879133493253296

Action path: EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, SOUTH

Statement: Given that in state 6 the agent chose SOUTH in what state would it chose EAST?   
In state 206:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 173, 173, 273, 373, 473, 477, 377, 277, 177, 197

Loss function value: -0.836775003770371

Action path: SOUTH, SOUTH, SOUTH, PICKUP, NORTH, NORTH, NORTH, EAST

Statement: Given that in state 173 the agent chose SOUTH in what state would it chose NORTH?   
In state 197 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 1

State Path: 173, 173, 273, 293, 193, 173, 153, 253

Loss function value: -0.7916131652021602

Action path: SOUTH, EAST, NORTH, WEST, WEST, SOUTH

Statement: Given that in state 173 the agent chose SOUTH in what state would it chose EAST?   
In state 253:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 1

State Path: 173, 173, 73, 93, 193, 173, 273, 253, 153, 173, 273, 293

Loss function value: -0.7966164300111208

Action path: NORTH, EAST, SOUTH, WEST, SOUTH, WEST, NORTH, EAST, SOUTH, EAST

Statement: Given that in state 173 the agent chose SOUTH in what state would it chose WEST?   
In state 293:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 392, 392, 372

Loss function value: -0.4382157187525873

Action path: WEST

Statement: Given that in state 392 the agent chose WEST in what state would it chose SOUTH?   
In state 372:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 392, 392, 372, 272, 252, 352

Loss function value: -0.6053334744749419

Action path: WEST, NORTH, WEST, SOUTH

Statement: Given that in state 392 the agent chose WEST in what state would it chose NORTH?   
In state 352:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 1

State Path: 53, 53, 73, 173, 153, 53, 73, 93, 193, 173, 153, 53, 73, 173, 273, 253

Loss function value: -0.6176824437805812

Action path: EAST, SOUTH, WEST, NORTH, EAST, EAST, SOUTH, WEST, WEST, NORTH, EAST, SOUTH, SOUTH, WEST

Statement: Given that in state 53 the agent chose SOUTH in what state would it chose EAST?   
In state 253:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 254, 254, 354, 454, 434, 334, 354, 254, 234, 334, 354, 254, 154

Loss function value: -0.5136952534830511

Action path: SOUTH, SOUTH, WEST, NORTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, NORTH

Statement: Given that in state 254 the agent chose EAST in what state would it chose SOUTH?   
In state 154:

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 254, 254, 354

Loss function value: -0.4478927488254329

Action path: SOUTH

Statement: Given that in state 254 the agent chose EAST in what state would it chose NORTH?   
In state 354:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 254, 254, 354, 334, 234, 254, 274, 294

Loss function value: -0.6404113097858726

Action path: SOUTH, WEST, NORTH, EAST, EAST, EAST

Statement: Given that in state 254 the agent chose EAST in what state would it chose WEST?   
In state 294:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 34, 34, 134, 234, 254, 154, 54, 74, 174, 274, 294

Loss function value: -1.169883103032605

Action path: SOUTH, SOUTH, EAST, NORTH, NORTH, EAST, SOUTH, SOUTH, EAST

Statement: Given that in state 34 the agent chose SOUTH in what state would it chose WEST?   
In state 294:

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|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 279, 279, 259, 239, 139, 39, 19, 119, 139, 239, 259, 359

Loss function value: -0.70208648288576

Action path: WEST, WEST, NORTH, NORTH, WEST, SOUTH, EAST, SOUTH, EAST, SOUTH

Statement: Given that in state 279 the agent chose SOUTH in what state would it chose NORTH?   
In state 359:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 279, 279, 259

Loss function value: -0.39316941966229096

Action path: WEST

Statement: Given that in state 279 the agent chose SOUTH in what state would it chose EAST?   
In state 259:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 279, 279, 259, 239, 339, 359, 259, 279, 179, 199

Loss function value: -0.7664639354248238

Action path: WEST, WEST, SOUTH, EAST, NORTH, EAST, NORTH, EAST

Statement: Given that in state 279 the agent chose SOUTH in what state would it chose WEST?   
In state 199:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 0

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 0

State Path: 204, 204, 224, 244, 264, 284, 384, 364, 264, 244, 224, 124

Loss function value: -0.7852216431384426

Action path: EAST, EAST, EAST, EAST, SOUTH, WEST, NORTH, WEST, WEST, NORTH

Statement: Given that in state 204 the agent chose EAST in what state would it chose SOUTH?   
In state 124:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 0

State Path: 204, 204, 104, 124, 224, 204, 104, 124, 224, 204, 304

Loss function value: -0.5539220585120275

Action path: NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, SOUTH

Statement: Given that in state 204 the agent chose EAST in what state would it chose NORTH?   
In state 304:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 202, 202, 222, 322, 422, 442, 342, 322, 222, 242, 142

Loss function value: -0.9062780840078252

Action path: EAST, SOUTH, SOUTH, EAST, NORTH, WEST, NORTH, EAST, NORTH

Statement: Given that in state 202 the agent chose NORTH in what state would it chose SOUTH?   
In state 142:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 222, 222, 122, 22, 2, 102, 202, 222, 322, 422, 442, 342, 242, 142

Loss function value: -0.8064187021787167

Action path: NORTH, NORTH, WEST, SOUTH, SOUTH, EAST, SOUTH, SOUTH, EAST, NORTH, NORTH, NORTH

Statement: Given that in state 222 the agent chose WEST in what state would it chose SOUTH?   
In state 142:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 222, 222, 322

Loss function value: -0.4387819759192918

Action path: SOUTH

Statement: Given that in state 222 the agent chose WEST in what state would it chose NORTH?   
In state 322:

+---------+

|R: | : :G|

| : | : : |

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| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 132, 132, 112, 212, 232, 132, 112, 212, 232, 132, 112, 212, 232, 332

Loss function value: -0.5952518879011898

Action path: WEST, SOUTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, EAST, SOUTH

Statement: Given that in state 132 the agent chose SOUTH in what state would it chose NORTH?   
In state 332:

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|R: | : :G|

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 132, 132, 32, 12, 112, 132, 32, 12, 112, 132, 32, 12, 112, 132, 232, 252, 152, 172, 192

Loss function value: -0.8477774041118966

Action path: NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, WEST, SOUTH, EAST, SOUTH, EAST, NORTH, EAST, EAST

Statement: Given that in state 132 the agent chose SOUTH in what state would it chose WEST?   
In state 192:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 114, 114, 14

Loss function value: -0.4852082260241732

Action path: NORTH

Statement: Given that in state 114 the agent chose EAST in what state would it chose SOUTH?   
In state 14:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 114, 114, 134, 34, 14, 114, 134, 234, 214, 114, 14, 34, 134, 114, 214, 314

Loss function value: -0.6394488121222829

Action path: EAST, NORTH, WEST, SOUTH, EAST, SOUTH, WEST, NORTH, NORTH, EAST, SOUTH, WEST, SOUTH, SOUTH

Statement: Given that in state 114 the agent chose EAST in what state would it chose NORTH?   
In state 314:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 474, 474, 478

Loss function value: -0.41753991142942853

Action path: PICKUP

Statement: Given that in state 474 the agent chose PICKUP in what state would it chose NORTH?   
In state 478 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 3

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 2

State Path: 474, 474, 374, 274, 174, 74, 94, 194, 294, 274, 254

Loss function value: -0.8182824861410357

Action path: NORTH, NORTH, NORTH, NORTH, EAST, SOUTH, SOUTH, WEST, WEST

Statement: Given that in state 474 the agent chose PICKUP in what state would it chose EAST?   
In state 254:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 352, 352, 332, 432, 452, 352, 332, 232, 252, 352, 332, 232, 252, 152

Loss function value: -0.6773476506069441

Action path: WEST, SOUTH, EAST, NORTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, NORTH

Statement: Given that in state 352 the agent chose NORTH in what state would it chose SOUTH?   
In state 152:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 0

State Path: 352, 352, 452, 432, 332, 352, 452, 432, 332, 352, 452, 432, 332, 352, 252, 152, 172, 272, 372, 392

Loss function value: -0.654734183912282

Action path: SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, EAST, SOUTH, SOUTH, EAST

Statement: Given that in state 352 the agent chose NORTH in what state would it chose WEST?   
In state 392:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 217, 217, 237, 337, 437, 457, 357, 257, 237, 217, 117

Loss function value: -0.45866716184131023

Action path: EAST, SOUTH, SOUTH, EAST, NORTH, NORTH, WEST, WEST, NORTH

Statement: Given that in state 217 the agent chose EAST in what state would it chose SOUTH?   
In state 117:

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 217, 217, 317

Loss function value: -0.4578077927324179

Action path: SOUTH

Statement: Given that in state 217 the agent chose EAST in what state would it chose NORTH?   
In state 317:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 3

Passenger destination: 1

State Path: 113, 113, 133, 233, 213, 113, 13, 33, 133, 113, 213, 313

Loss function value: -0.6192502645200667

Action path: EAST, SOUTH, WEST, NORTH, NORTH, EAST, SOUTH, WEST, SOUTH, SOUTH

Statement: Given that in state 113 the agent chose SOUTH in what state would it chose NORTH?   
In state 313:

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|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 3

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 3

Passenger destination: 1

State Path: 113, 113, 213

Loss function value: -0.503152727353225

Action path: SOUTH

Statement: Given that in state 113 the agent chose SOUTH in what state would it chose EAST?   
In state 213:

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|R: | : :G|

| : | : : |

| : : : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 282, 282, 382, 482, 462, 362, 382, 282, 262, 362, 382, 282, 182, 82, 62

Loss function value: -0.8831164211517373

Action path: SOUTH, SOUTH, WEST, NORTH, EAST, NORTH, WEST, SOUTH, EAST, NORTH, NORTH, NORTH, WEST

Statement: Given that in state 282 the agent chose WEST in what state would it chose SOUTH?   
In state 62:

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|R: | : :G|

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 282, 282, 182, 82, 62, 42, 142, 242, 262, 282, 382, 482

Loss function value: -0.6270061704164953

Action path: NORTH, NORTH, WEST, WEST, SOUTH, SOUTH, EAST, EAST, SOUTH, SOUTH

Statement: Given that in state 282 the agent chose WEST in what state would it chose NORTH?   
In state 482:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 0

State Path: 216, 216, 236, 256, 276, 296, 196, 176, 276, 256, 156

Loss function value: -1.012330792889448

Action path: EAST, EAST, EAST, EAST, NORTH, WEST, SOUTH, WEST, NORTH

Statement: Given that in state 216 the agent chose NORTH in what state would it chose SOUTH?   
In state 156:

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 477, 477, 497

Loss function value: -0.4567207372708721

Action path: EAST

Statement: Given that in state 477 the agent chose EAST in what state would it chose NORTH?   
In state 497:

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|R: | : :G|

| : | : : |

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| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 311, 311, 211, 231, 331

Loss function value: -0.4781598791731095

Action path: NORTH, EAST, SOUTH

Statement: Given that in state 311 the agent chose SOUTH in what state would it chose NORTH?   
In state 331:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 122, 122, 222, 322, 342, 242, 262, 162, 142

Loss function value: -0.4708811345845245

Action path: SOUTH, SOUTH, EAST, NORTH, EAST, NORTH, WEST

Statement: Given that in state 122 the agent chose WEST in what state would it chose SOUTH?   
In state 142:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 122, 122, 102

Loss function value: -0.44979791057140744

Action path: WEST

Statement: Given that in state 122 the agent chose WEST in what state would it chose NORTH?   
In state 102:

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|R: | : :G|

| : | : : |

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 2

State Path: 142, 142, 162, 62, 42, 142, 242, 222, 122, 102

Loss function value: -0.6002338743269592

Action path: EAST, NORTH, WEST, SOUTH, SOUTH, WEST, NORTH, WEST

Statement: Given that in state 142 the agent chose SOUTH in what state would it chose NORTH?   
In state 102:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 0

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 1

State Path: 269, 269, 289, 189, 169, 269, 289, 389, 369, 269, 249, 149

Loss function value: -0.8408648567557283

Action path: EAST, NORTH, WEST, SOUTH, EAST, SOUTH, WEST, NORTH, WEST, NORTH

Statement: Given that in state 269 the agent chose WEST in what state would it chose SOUTH?   
In state 149:

+---------+

|R: | : :G|

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|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

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Counterfactual explanation:

Passenger location: 2

Passenger destination: 1

State Path: 269, 269, 169, 69, 49, 149, 169, 269, 289, 389, 369

Loss function value: -0.5012387172122806

Action path: NORTH, NORTH, WEST, SOUTH, EAST, SOUTH, EAST, SOUTH, WEST

Statement: Given that in state 269 the agent chose WEST in what state would it chose NORTH?   
In state 369:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 1

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 269, 269, 249, 229, 209, 309, 409, 417, 317, 217

Loss function value: -1.4118094858120651

Action path: WEST, WEST, WEST, SOUTH, SOUTH, PICKUP, NORTH, NORTH

Statement: Given that in state 269 the agent chose WEST in what state would it chose EAST?   
In state 217 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 138, 138, 118

Loss function value: -0.47045816478288366

Action path: WEST

Statement: Given that in state 138 the agent chose WEST in what state would it chose SOUTH?   
In state 118:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 138, 138, 118, 18, 38, 138, 118, 218, 238, 338

Loss function value: -0.6343249705210396

Action path: WEST, NORTH, EAST, SOUTH, WEST, SOUTH, EAST, SOUTH

Statement: Given that in state 138 the agent chose WEST in what state would it chose NORTH?   
In state 338:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 291, 291, 271, 371, 391, 291, 271, 171, 191, 91

Loss function value: -0.5983023444533357

Action path: WEST, SOUTH, EAST, NORTH, WEST, NORTH, EAST, NORTH

Statement: Given that in state 291 the agent chose WEST in what state would it chose SOUTH?   
In state 91:

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|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 291, 291, 391

Loss function value: -0.4521012427819082

Action path: SOUTH

Statement: Given that in state 291 the agent chose WEST in what state would it chose NORTH?   
In state 391:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 498, 498, 478

Loss function value: -0.391583152727391

Action path: WEST

Statement: Given that in state 498 the agent chose WEST in what state would it chose NORTH?   
In state 478:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

No counterfactual found for target EAST

Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 86, 86, 66, 166, 186, 86, 66, 46, 146, 246, 226, 126

Loss function value: -0.984945296675374

Action path: WEST, SOUTH, EAST, NORTH, WEST, WEST, SOUTH, SOUTH, WEST, NORTH

Statement: Given that in state 86 the agent chose PICKUP in what state would it chose SOUTH?   
In state 126:

+---------+

|R: | : :G|

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| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 86, 86, 186, 166, 66, 86, 98

Loss function value: -0.7511618697672475

Action path: SOUTH, WEST, NORTH, EAST, PICKUP

Statement: Given that in state 86 the agent chose PICKUP in what state would it chose WEST?   
In state 98 where the passanger location is now In Taxi:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 199, 199, 299

Loss function value: -0.4227471962798478

Action path: SOUTH

Statement: Given that in state 199 the agent chose WEST in what state would it chose SOUTH?   
In state 299:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 199, 199, 179, 159, 259, 359

Loss function value: -0.886605228271647

Action path: WEST, WEST, SOUTH, SOUTH

Statement: Given that in state 199 the agent chose WEST in what state would it chose NORTH?   
In state 359:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 1

Passenger destination: 0

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 1

Passenger destination: 0

State Path: 424, 424, 324, 224, 124, 24, 4, 104, 204, 224, 324, 424, 444

Loss function value: -0.5082133021818817

Action path: NORTH, NORTH, NORTH, NORTH, WEST, SOUTH, SOUTH, EAST, SOUTH, SOUTH, EAST

Statement: Given that in state 424 the agent chose EAST in what state would it chose NORTH?   
In state 444:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 2

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 458, 458, 438, 338, 358, 458, 438, 338, 358, 458, 438, 338, 358, 258

Loss function value: -0.5467016104802878

Action path: WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, SOUTH, WEST, NORTH, EAST, NORTH

Statement: Given that in state 458 the agent chose NORTH in what state would it chose WEST?   
In state 258:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 4

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 4

Passenger destination: 3

State Path: 459, 459, 359, 259, 159, 59, 79, 179, 159, 259, 279, 379, 479, 499

Loss function value: -0.5308569725995753

Action path: NORTH, NORTH, NORTH, NORTH, EAST, SOUTH, WEST, SOUTH, EAST, SOUTH, SOUTH, EAST

Statement: Given that in state 459 the agent chose NORTH in what state would it chose WEST?   
In state 499:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 191, 191, 291, 391, 491, 471, 371, 271, 171, 191, 91

Loss function value: -0.4651294846968258

Action path: SOUTH, SOUTH, SOUTH, WEST, NORTH, NORTH, NORTH, EAST, NORTH

Statement: Given that in state 191 the agent chose WEST in what state would it chose SOUTH?   
In state 91:

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Factual explanation:

Passenger location: 2

Passenger destination: 3

+---------+

|R: | : :G|

| : | : : |

| : : : : |

| | : | : |

|Y| : |B: |

+---------+

Counterfactual explanation:

Passenger location: 2

Passenger destination: 3

State Path: 191, 191, 171, 151, 251, 271, 291, 191, 171, 271, 291, 391

Loss function value: -0.6143455010870047

Action path: WEST, WEST, SOUTH, EAST, EAST, NORTH, WEST, SOUTH, EAST, SOUTH

Statement: Given that in state 191 the agent chose WEST in what state would it chose NORTH?   
In state 391:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 441, 441, 421

Loss function value: -0.4426612184186265

Action path: WEST

Statement: Given that in state 441 the agent chose WEST in what state would it chose NORTH?   
In state 421:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 1

State Path: 421, 421, 321, 221, 121, 21, 1, 101, 121, 21, 1, 17

Loss function value: -1.7947064905118066

Action path: NORTH, NORTH, NORTH, NORTH, WEST, SOUTH, EAST, NORTH, WEST, PICKUP

Statement: Given that in state 421 the agent chose NORTH in what state would it chose EAST?   
In state 17 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 206, 206, 226, 326, 346, 446, 426, 326, 226, 206, 106

Loss function value: -0.5059269822055728

Action path: EAST, SOUTH, EAST, SOUTH, WEST, NORTH, NORTH, WEST, NORTH

Statement: Given that in state 206 the agent chose EAST in what state would it chose SOUTH?   
In state 106:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 206, 206, 226, 246, 146, 46, 66, 166, 266, 246, 226, 206, 306

Loss function value: -0.459514004372714

Action path: EAST, EAST, NORTH, NORTH, EAST, SOUTH, SOUTH, WEST, WEST, WEST, SOUTH

Statement: Given that in state 206 the agent chose EAST in what state would it chose NORTH?   
In state 306:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 0

Passenger destination: 1

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 0

Passenger destination: 1

State Path: 481, 481, 381

Loss function value: -0.4594339737136109

Action path: NORTH

Statement: Given that in state 481 the agent chose NORTH in what state would it chose WEST?   
In state 381:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 266, 266, 366, 466, 486, 386, 286, 266, 246, 346, 326, 226, 126

Loss function value: -0.9657212578026093

Action path: SOUTH, SOUTH, EAST, NORTH, NORTH, WEST, WEST, SOUTH, WEST, NORTH, NORTH

Statement: Given that in state 266 the agent chose EAST in what state would it chose SOUTH?   
In state 126:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 1

Passenger destination: 2

State Path: 266, 266, 246, 226, 126, 26, 6, 106, 206, 226, 246, 266, 366

Loss function value: -0.5116048405585899

Action path: WEST, WEST, NORTH, NORTH, WEST, SOUTH, SOUTH, EAST, EAST, EAST, SOUTH

Statement: Given that in state 266 the agent chose EAST in what state would it chose NORTH?   
In state 366:

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|R: | : :G|

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|Y| : |B: |

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Factual explanation:

Passenger location: 1

Passenger destination: 2

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|R: | : :G|

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|Y| : |B: |

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Counterfactual explanation:

Passenger location: 4

Passenger destination: 2

State Path: 266, 266, 286, 386, 366, 266, 286, 186, 86, 98

Loss function value: -1.4295717253551319

Action path: EAST, SOUTH, WEST, NORTH, EAST, NORTH, NORTH, PICKUP

Statement: Given that in state 266 the agent chose EAST in what state would it chose WEST?   
In state 98 where the passanger location is now In Taxi:

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|R: | : :G|

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|Y| : |B: |

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CF Accuracy: 0.8938547486033519in mode ACTION