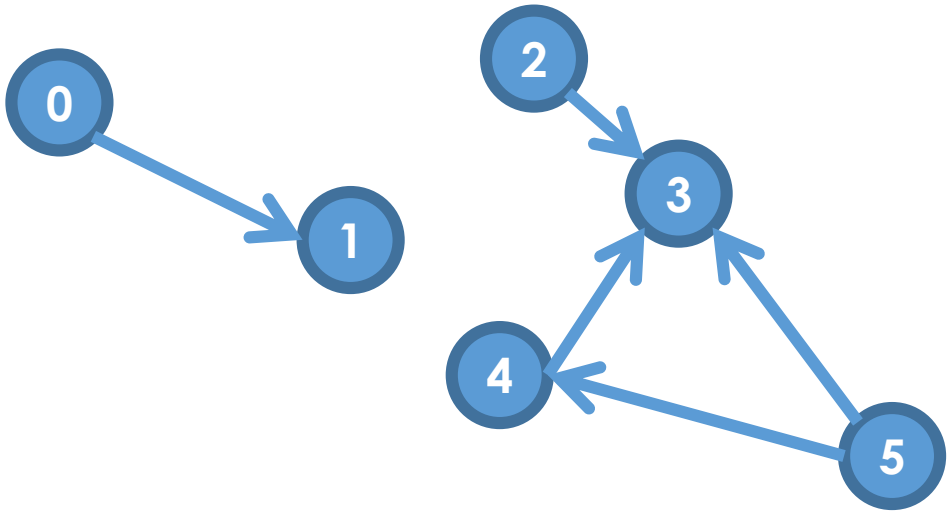
Coding getNeighbors

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

- Write code to implement getNeighbors in a graph with either an Adjacency List or an Adjacency Matrix representation

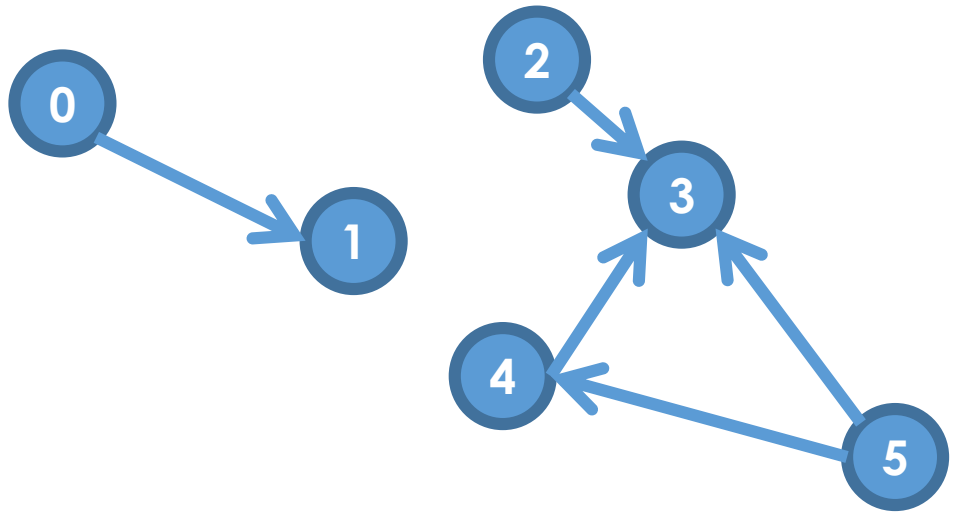
Adjacency Matrix Representation



0	1	0	0	0	0
0	0	0	0	0	0
0	0	0	1	0	0
0	0	0	0	0	0
0	0	0	1	0	0
0	0	0	1	1	0

```
public class GraphAdjMatrix extends Graph {

    private int[][] adjMatrix;
```

```
public class GraphAdjMatrix extends Graph {

   private int[][] adjMatrix;

   // getNumVertices and getNumEdges are defined here

   /** Return a list of the neighbors of v */
   public List<Integer> getNeighbors(int v) {
```



0 → {1}

1 → null

2 → {3}

3 → null

4 → {3}

5 → {3,4}

```
public class GraphAdjList extends Graph {

   private Map<Integer,ArrayList<Integer>> adjListsMap;
```

```
public class GraphAdjList extends Graph {

   private Map<Integer,ArrayList<Integer>> adjListsMap;

   // getNumVertices and getNumEdges are defined here

   /** Return a list of the neighbors of v */
   public List<Integer> getNeighbors(int v) {
```