

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 import java.util.*;
4
5 class Program {
6     // O(n) time | O(d) space - where n is the number of people
7     // in the org and d is the depth (height) of the org chart
8     public static OrgChart getLowestCommonManager(
9         OrgChart topManager, OrgChart reportOne, OrgChart reportTwo) {
10         return getOrgInfo(topManager, reportOne, reportTwo).lowestCommonM
11     }
12
13     public static OrgInfo getOrgInfo(OrgChart manager, OrgChart reportOn
14         int numImportantReports = 0;
15         for (OrgChart directReport : manager.directReports) {
16             OrgInfo orgInfo = getOrgInfo(directReport, reportOne, reportTwo)
17             if (orgInfo.lowestCommonManager != null) return orgInfo;
18             numImportantReports += orgInfo.numImportantReports;
19         }
20         if (manager == reportOne || manager == reportTwo) numImportantRepo
21         OrgChart lowestCommonManager = numImportantReports == 2 ? manager
22         OrgInfo newOrgInfo = new OrgInfo(lowestCommonManager, numImportant
23         return newOrgInfo;
24     }
25
26     static class OrgChart {
27         public char name;
28         public List<OrgChart> directReports;
29
30         OrgChart(char name) {
31             this.name = name;
32             this.directReports = new ArrayList<OrgChart>();
33         }
34     }
35 }
```

Solution 1 Solution 2 Solution 3

```
1 import java.util.*;
2
3 class Program {
4     public static OrgChart getLowestCommonManager(
5         OrgChart topManager, OrgChart reportOne, OrgChart reportTwo) {
6         // Write your code here.
7         return null;
8     }
9
10    static class OrgChart {
11        public char name;
12        public List<OrgChart> directReports;
13
14        OrgChart(char name) {
15            this.name = name;
16            this.directReports = new ArrayList<OrgChart>();
17        }
18
19        // This method is for testing only.
20        public void addDirectReports(OrgChart[] directReports) {
21            for (OrgChart directReport : directReports) {
22                this.directReports.add(directReport);
23            }
24        }
25    }
26 }
27 }
```

Our Tests

Custom Output

Submit Code

```
1 import java.util.*;
2
3 class Program {
4     public static OrgChart getLowestCommonManager(
5         OrgChart topManager, OrgChart reportOne, OrgChart reportTwo) {
6         // Write your code here.
7         return null;
8     }
9
10    static class OrgChart {
11        public char name;
12        public List<OrgChart> directReports;
13
14        OrgChart(char name) {
15            this.name = name;
16            this.directReports = new ArrayList<OrgChart>();
17        }
18
19        // This method is for testing only.
20        public void addDirectReports(OrgChart[] directReports) {
21            for (OrgChart directReport : directReports) {
22                this.directReports.add(directReport);
23            }
24        }
25    }
26 }
27 }
```

```

14 # Update the model with the new data
15 model.fit(X_train, y_train)
16 # Predict the target values for the new data
17 y_pred = model.predict(X_test)
18 # Calculate the mean squared error (MSE)
19 mse = mean_squared_error(y_test, y_pred)
20 # Print the MSE
21 print("MSE: {}".format(mse))
22
23 # Calculate the accuracy of the model
24 # Convert the predicted values to binary values (0 or 1)
25 y_pred_binary = (y_pred > 0.5).astype(int)
26 # Calculate the accuracy
27 accuracy = sum(y_test == y_pred_binary) / len(y_test)
28 # Print the accuracy
29 print("Accuracy: {}".format(accuracy))

```

Run or submit code when you're ready.