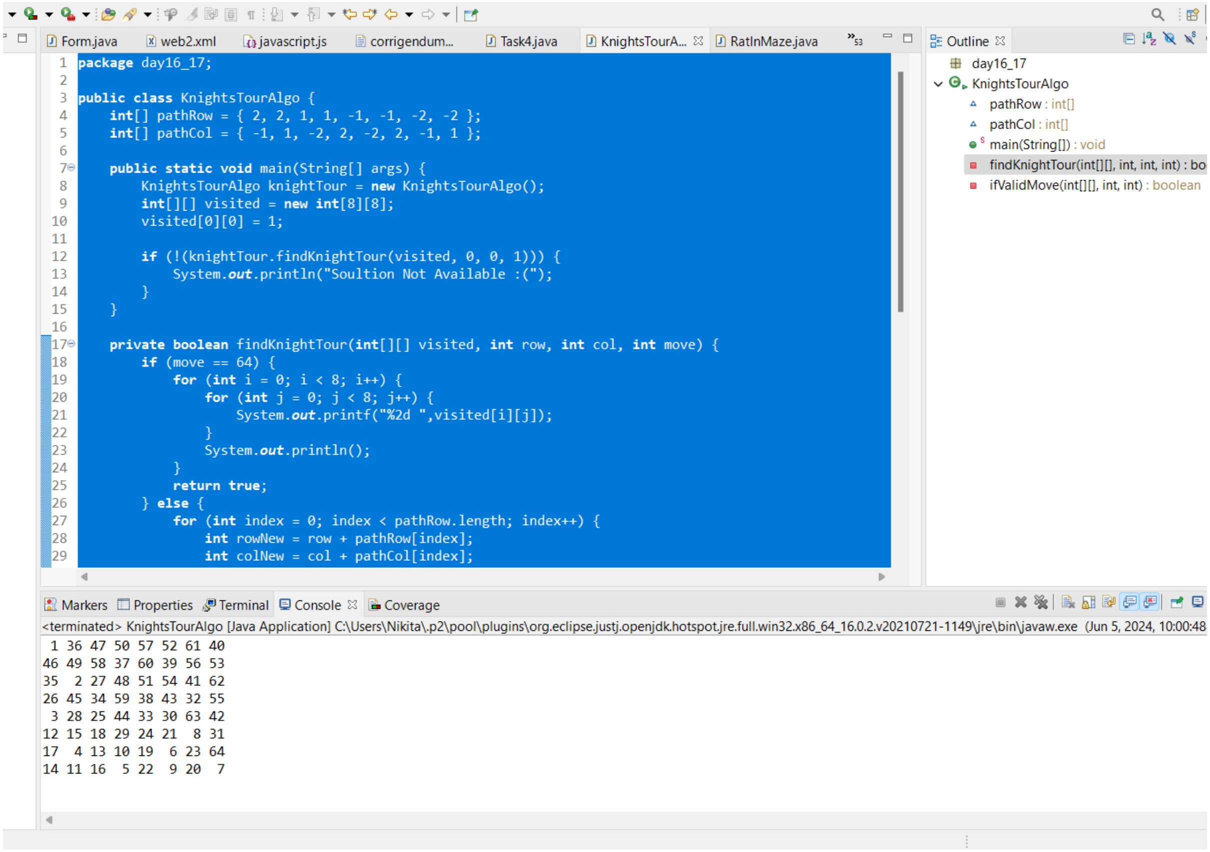
KnightsTourAlgo

```
package day16_17;

public class KnightsTourAlgo {
    int[] pathRow = { 2, 2, 1, 1, -1, -1, -2, -2 };
    int[] pathCol = { -1, 1, -2, 2, -2, 2, -1, 1 };

    public static void main(String[] args) {
        KnightsTourAlgo knightTour = new KnightsTourAlgo();
        int[][] visited = new int[8][8];
        visited[0][0] = 1;

        if (!(knightTour.findKnightTour(visited, 0, 0, 1))) {
            System.out.println("Soultion Not Available :(");
        }
    }

    private boolean findKnightTour(int[][] visited, int row, int col, int move) {
        if (move == 64) {
            for (int i = 0; i < 8; i++) {
                for (int j = 0; j < 8; j++) {
                    System.out.printf("%2d ",visited[i][j]);
                }
                System.out.println();
            }
            return true;
        } else {
            for (int index = 0; index < pathRow.length; index++) {
                int rowNew = row + pathRow[index];
                int colNew = col + pathCol[index];
                // Try all the moves from current coordinate
                if (ifValidMove(visited, rowNew, colNew)) {
                    // apply the move
                    move++;
                    visited[rowNew][colNew] = move;
                    if (findKnightTour(visited, rowNew, colNew, move)) {
                        return true;
                    }
                    // backtrack the move
                    move--;
                    visited[rowNew][colNew] = 0;

                }

            }
        }

        return false;
    }

    private boolean ifValidMove(int[][] visited, int rowNew, int colNew) {
        if (rowNew >= 0 && rowNew < 8 && colNew >= 0 && colNew < 8 &&
visited[rowNew][colNew] == 0) {
            return true;
        }
        return false;
    }
}
```



```java
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```

```
<terminated> KnightsTourAlgo [Java Application] C:\Users\Nikita\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_16.0.2.v20210721-1149\jre\bin\javaw.exe  (Jun 5, 2024, 10:00:48
 1 36 47 50 57 52 61 40
46 49 58 37 60 39 56 53
35  2 27 48 51 54 41 62
26 45 34 59 38 43 32 55
 3 28 25 44 33 30 63 42
12 15 18 29 24 21  8 31
17  4 13 10 19  6 23 64
14 11 16  5 22  9 20  7
```