

The screenshot shows a coding platform interface. On the left, the 'Output Window' displays 'Problem Solved Successfully' with a green checkmark. Below this, it shows 'Test Cases Passed: 1114 / 1114', 'Attempts: Correct / Total: 1 / 1', 'Accuracy: 100%', 'Points Scored: 4 / 4', and 'Time Taken: 0.05'. There are buttons for 'Solve Next' (Rat in a Maze, Black and White, Walks Coloring) and a section 'Stay Ahead With: Build 21 Projects in 21 Days'. On the right, the code editor shows a Python solution for graph coloring.

```
1 # User function Template for python3
2 class Solution:
3     def graphColoring(self, v, edges, m):
4         adj = [[] for _ in range(v)]
5         for u, w in edges:
6             adj[u].append(w)
7             adj[w].append(u)
8         color = [0] * v
9
10        def isSafe(node, c):
11            for nei in adj[node]:
12                if color[nei] == c:
13                    return False
14            return True
15
16        def solve(node):
17            if node == v:
18                return True
19            for c in range(1, m + 1):
20                if isSafe(node, c):
21                    color[node] = c
22                    if solve(node + 1):
23                        return True
24                    color[node] = 0
25            return False
26
27        return solve(0)
```

class Solution:

```
def graphColoring(self, v, edges, m):
```

```
    adj = [[] for _ in range(v)]
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```
    for u, w in edges:
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        adj[u].append(w)
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    color = [0] * v
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    def isSafe(node, c):
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```
        for nei in adj[node]:
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```
            if color[nei] == c:
```

```
                return False
```

```
    return True
```

```
    def solve(node):
```

```
        if node == v:
```

```
            return True
```

```
        for c in range(1, m + 1):
```

```
            if isSafe(node, c):
```

```
                color[node] = c
```

```
                if solve(node + 1):
```

```
                    return True
```

```
                color[node] = 0
```

```
    return False
```

```
    return solve(0)
```