

## **Experiment 2.2**

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**Branch:** BE-CSE **Section/Group:** 701/A

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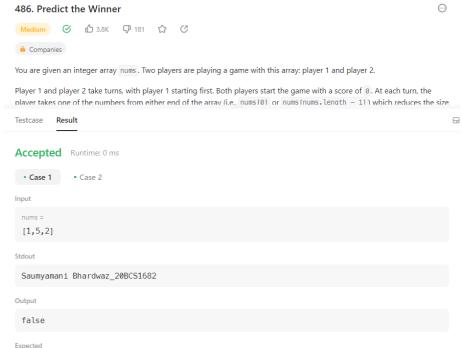
**Subject Name:** Competitive Coding-II **Subject Code:** 20CSP-351

**Aim:** To demonstrate the concept of Graphs

```
1. Predict The Winner
```

```
class Solution {
public:
  int rec(vector<int> &nums,int i,int j,vector<vector<int>> &dp){
     if(i > j) return 0;
     if(dp[i][j] != -1) return dp[i][j];
     int ans 1 = \text{nums}[i] + \text{min}(\text{rec}(\text{nums}, i+1, j-1, dp), \text{rec}(\text{nums}, i+2, j, dp));
     int ans2 = nums[j] + min(rec(nums,i+1,j-1,dp),rec(nums,i,j-2,dp));
     dp[i][j] = max(ans1,ans2);
     return dp[i][j];
  bool PredictTheWinner(vector<int>& nums) {
     int n = nums.size();
     vector < vector < int >> dp(n, vector < int >(n,-1));
     int ans = rec(nums, 0, n-1, dp);
     int sum = 0;
     for(auto i:nums) sum += i;
     cout<<"Saumyamani Bhardwaz_20BCS1682"<<endl;
     return (ans \geq sum - ans);
};
```

## **Output:**





2. Find the Difference

## **Output:**

