EXP NO . – 1.2

NAME RAJDEEP JAISWAL	UID – 20BCS2761
BRANCH – B.TECH (CSE)	SEC/GROUP – 26(B)
SEMESTER – 2ND	D.O.P – 3 MAY 2021
SUBJECT – COMPUTER WORKSHOP	

TOPIC. =

Tony Stark is in the planet Titan crying for his friends are turning into ashes, and on earth mayhem has ensued since a lot of people are turning into ashes too. Some trains have been derailed in such a way that a lot of its coaches are thrown off in a random disarray like coach 3, 4 and 5 are thrown off in one place, coach 2 and 6 are thrown off in another place, etc.

S.H.I.E.L.D calls upon Hulk and jarvis to help them collect and connect some the thrown off coaches of those trains, but a train can only move if the collected coaches number are in a continuous manner (need not to be in order) ,like 1234, 2314, 4123, 2341 etc.

Help Jarvis write a program for hulk to decide whether collected coaches will move or not.

SOLUTION –

Input Format:

First line contains one number *t* , denoting the number of test cases.

Next *t* lines contain sequence of the collected coach numbers (*n*)

Output Format:

YES or NO (In capitals)

Input constraints:

1 <= t <= 10000

1<= n <= 1000000

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CODE IN TEXT FORM

```
#include <bits/stdc++.h>
using namespace std;

bool helpJarvis(string s)
{
   vector<char> v;
   for (int i = 0; i < s.size(); i++)
      v.push_back(s[i]);
   sort(v.begin(), v.end());
   for (int i = 0; i < v.size() - 1; i++)
      if ((v[i + 1] - v[i]) != 1)
         return false;

   return true;
}
int main()
{

   string s = "4231";

   bool ans = helpJarvis(s);
   if (ans == true)
      cout << "YES\n";
   else
      cout << "NO\n";

   return 0;
}
```

CODE IN COMPILER / IDE –

main.cpp

```cpp
#include <bits/stdc++.h>
using namespace std;

bool helpJarvis(string s)
{
    vector<char> v;
    for (int i = 0; i < s.size(); i++)
        v.push_back(s[i]);
    sort(v.begin(), v.end());
    for (int i = 0; i < v.size() - 1; i++)
        if ((v[i + 1] - v[i]) != 1)
            return false;

    return true;
}
int main()
{

    string s = "4231";

    bool ans = helpJarvis(s);
    if (ans == true)
        cout << "YES\n";
    else
        cout << "NO\n";

    return 0;
}
```

OUTPUT –

LEARNING OUTCOMES

1. Apply coding skills to solve application based problems on competitive platforms such as Hacker Rank/ Hacker Earth/Code Chef.
2. Understand the basic concept and structure of computer hardware
3. Identify the existing configuration of the computers and peripherals.
4. Installing and uninstalling multiple operating systems on a machine.
5. Apply their knowledge about computer peripherals to identify /rectify problems on-board.

EVALUATION COLUMN (To be filled by concerned faculty only)

Sr. No.	Parameters	Maximum Marks	Marks Obtained
1.	Worksheet Completion including writing learning objective/ Outcome	10	
2.	Post Lab Quiz Result	5	
3.	Student engagement in Simulation/ Performance/ Pre Lab Questions	5	
4.	Total Marks	20	