Sartaj and the Fuel Stations

This question can be solved using the greedy algorithm. With the current number of stops, try to maintain the maximum indexed fuel station which is reachable. When you exceed this index, you have to increase the number of stops, and at that instance you can increase the maximum index reachable accordingly. When the maximum index reachable becomes greater than or equal to the index of last fuel station, the current number of stops will be the answer.

PYTHON SOLUTION

```
n=int(input())
p=[int(i) for i in input().split()]
last = n-1
stops = 0
reachable = 0
next_reachable = 0
flag=1
for i, x in enumerate(p):
        if reachable >= last:
            break
        if reachable < i:
            reachable = next_reachable
            stops += 1
            if reachable < i:
                flag=0
                break
        next_reachable = max(next_reachable, i+x)
if flag==0:
        print(-1)
```

```
else:
        print(stops+1)
```

C++ SOLUTION

```
#include<iostream>
using namespace std;
 int main(){
        long long int n,last,stops,reachable,next_reachable,flag,i;
        cin>>n;
        long long int p[n];
        for(i=0;i<n;i++)
                cin>>p[i];
        last=n-1;
        stops=0;
        reachable=0;
        next_reachable=0;
        flag=1;
        for(i=0;i<n;i++){
                if(reachable>=last)
                        break;
                if(reachable<i){
                        reachable=next_reachable;
                        stops+=1;
                        if(reachable<i){
                                flag=0;
                                break;
                        }
```

```
            }
            next_reachable=max(next_reachable,i+p[i]);
        }
        if(flag==0)
            cout<<-1;
        else
            cout<<stops+1;
}
```