Assignment Solutions | Strings - 1 | Week 7

1.Input a string of size n and update all the odd positions in the string to character '#'. Consider
0-based indexing.
Input : str = "Pbwcshkuiglhlds"
Output : "P#w#s#k#i#l#l#s"
input : str = "a"
Output : "a"
Solution :

```
#include <bits/stdc++.h>
using namespace std;
int main() {
int n;
cin >> n;
string s;
cin >> s;
for (int i = 1; i < (int)s.size(); i += 2) {
s[i] = '#';
}
cout << s;
}
```

2.Input a string of length n and count all the consonants in the given string.
Input : "pwians"
Output : 4
Input : "abdc"
Output : 3
Solution :

```
#include <bits/stdc++.h>
using namespace std;
int main() {
int n;
cin >> n;
string s;
cin >> s;
int c = 0;
for (int i = 0; i < (int)s.size(); i ++) {
if (s[i] == 'a' || s[i] == 'e' || s[i] == 'o' || s[i] == 'u' || s[i] == 'i')
{
c++;
}
}
cout << n - c;
}
```

3.Check whether the given string is palindrome or not.
Input : "abcde"
Output : No
Input : "abcdcba"
Output : Yes
Solution :

```
#include <bits/stdc++.h>
using namespace std;
bool check(string &s) {
int i = 0, j = (int)s.size() - 1;
while (i <= j) {
if (s[i] != s[j]) return false;
i++, j--;
}
}
int main() {
int n;
cin >> n;
string s;
cin >> s;
cout << (check(s) ? "YES" : "NO");
}
```

4.Input a string of even length and reverse the second half of the string.
Input : str = "abcdefgh"

Output : abcdhgfe
Input :str = "pwians"
Output : pwisna
Solution :

```
#include <bits/stdc++.h>
using namespace std;
int main() {
int n;
cin >> n;
string s;
cin >> s;
if(s.size()%2 != 0) cout<<"Invalid input."<<endl;
else{
reverse(s.begin() + n / 2, s.end());
cout << s;
}
}
```

5.Input a string of length less than 10 and convert it into integer without using builtin function.
Input : "3244"
Output : 3244
Input : "12"
Output : 12
Solution :

```
#include <bits/stdc++.h>
using namespace std;
int main() {
string s;
cin >> s;
int val = 0, pw = 1;
while (s.size()) {
val += pw * (s.back() - '0');
s.pop_back();
pw *= 10;
}
cout << val;
}
```