OUTPUT SCREENSHOT:

CHALLENGE 1:

BRUTE FORCE:

```
Enter number of steps: 5
Total ways: 8
--------------------------------
Process exited after 14.05 seconds with return value 0
Press any key to continue . . .
```

OPTIMIZED:

```
Enter number of steps: 5
Total ways: 8
--------------------------------
Process exited after 1.688 seconds with return value 0
Press any key to continue . . .
```

CHALLENGE 2:

BRUTE FORCE:

```
True
--------------------------------
Process exited after 0.04191 seconds with return value 0
Press any key to continue . . .
```

OPTIMIZED:

```
True
--------------------------------
Process exited after 0.05022 seconds with return value 0
Press any key to continue . . .
```

CHALLENGE 3:

BRUTE FORCE:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Enter string: bbabcbcab
Longest Palindromic Subsequence Length: 7
-----------------------------------
Process exited after 2.63 seconds with return value 0
Press any key to continue . . .
```

OPTIMIZED:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Enter string: bbabcbcab
Longest Palindromic Subsequence Length: 7
-----------------------------------
Process exited after 17.19 seconds with return value 0
Press any key to continue . . .
```

CHALLENGE 4:

BRUTE FORCE:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Total ways: 4
-----------------------------------
Process exited after 0.04659 seconds with return value 0
Press any key to continue . . .
```

OPTIMIZED:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Total ways: 4
-----------------------------------
Process exited after 0.04975 seconds with return value 0
Press any key to continue . . .
```

CHALLENGE 5:

BRUTE FORCE:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Minimum bookings to cancel: 1
----------------------------------
Process exited after 0.04525 seconds with return value 0
Press any key to continue . . .
```

OPTIMIZED:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Minimum bookings to cancel: 1
----------------------------------
Process exited after 0.04932 seconds with return value 0
Press any key to continue . . .
```
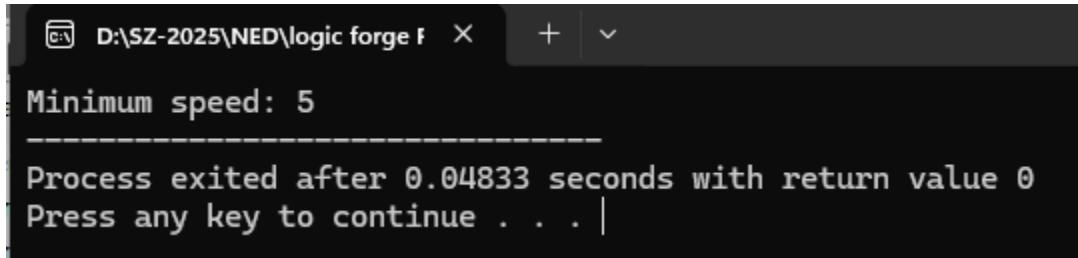
CHALLENGE 6:

BRUTE FORCE:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Jobs Completed: 2, Max Profit: 60
----------------------------------
Process exited after 0.05376 seconds with return value 0
Press any key to continue . . .
```

OPTIMIZED:

```
D:\SZ-2025\NED\logic forge F    ×    +    ∨

Jobs Completed: 2, Max Profit: 60
----------------------------------
Process exited after 0.04463 seconds with return value 0
Press any key to continue . . .
```

CHALLENGE 7:
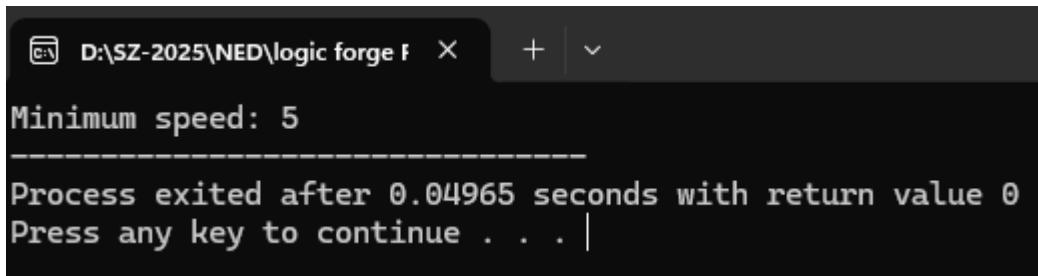
BRUTE FORCE:


```
Minimum speed: 5
----------------------------------
Process exited after 0.04833 seconds with return value 0
Press any key to continue . . .
```

OPTIMIZED:


```
Minimum speed: 5
----------------------------------
Process exited after 0.04965 seconds with return value 0
Press any key to continue . . .
```