

OUTPUTS SCREENSHOTS

CHALLENGE 1:

BRUTE FORCE CODE:

```
D:\SZ-2025\NED\DSA\challen X + v
Enter number of team members: 4
Enter contribution scores:
1 2 3 4
Impact array:
24 12 8 6
-----
Process exited after 7.657 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED CODE:

```
D:\SZ-2025\NED\DSA\challen X + v
Enter number of team members: 4
Enter contribution scores:
1 2 3 4
Impact array:
24 12 8 6
-----
Process exited after 7.211 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 2:

BRUTE FORCE CODE:

```
D:\SZ-2025\NED\logic forge f X + v
Enter log string: ADOBECODEBANC
Enter pattern string: ABC
Minimum window: BANC
-----
Process exited after 37.19 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED CODE:

```
D:\SZ-2025\NED\logic forge f X + v
Enter log string: ADOBECODEBANC
Enter pattern string: ABC
Minimum window: BANC

-----
Process exited after 18.4 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 3:

BRUTE FORCE CODE:

```
D:\SZ-2025\NED\logic forge f X + v
Enter size of Team A scores: 2
Enter size of Team B scores: 1
Enter sorted scores of Team A:
1 3
Enter sorted scores of Team B:
2
Median score: 2

-----
Process exited after 51.21 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED CODE:

```
D:\SZ-2025\NED\logic forge f X + v
Enter size of Team A scores: 2
Enter size of Team B scores: 1
Enter sorted scores of Team A:
1 3
Enter sorted scores of Team B:
2
Median score: 2

-----
Process exited after 7.766 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 4:

BRUTE FORCE CODE:

```
D:\SZ-2025\NED\logic forge f X + v
13
-----
Process exited after 0.03074 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED CODE:

```
D:\SZ-2025\NED\logic forge f X + v
13
-----
Process exited after 0.03486 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 5:

BRUTE FORCE CODE:

```
D:\SZ-2025\NED\logic forge f X + v
Input: "()()()"
Output: ["()()()", "()()()"]

Input: "(a)()()()"
Output: ["(a)()()()", "(a)()()()"]

Input: ")("
Output: [""]

Input: "()"
Output: ["()"]

Input: "abc"
Output: ["abc"]

Input: "((("
Output: [""]

-----
Process exited after 0.0381 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED CODE:

```
D:\SZ-2025\NED\logic forge f  X + v

Input: "()())()"
Output: ["()()()", "()()()"]

Input: "(a)())()"
Output: ["(a)()()", "(a)()()"]

Input: ")("
Output: [""]

Input: "()"
Output: ["()"]

Input: "abc"
Output: ["abc"]

Input: "((("
Output: [""]

-----
Process exited after 0.04194 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 6:

BRUTE FORCE CODE:

```
D:\SZ-2025\NED\logic forge f  X + v

Enter number of disks: 2
Disk 1 moved from A to B
Disk 2 moved from A to C
Disk 1 moved from B to C

-----
Process exited after 9.545 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED CODE:

```
D:\SZ-2025\NED\logic forge F X + v
3
Disk 1 moved from A to C
Disk 2 moved from A to B
Disk 1 moved from C to B
Disk 3 moved from A to C
Disk 1 moved from B to A
Disk 2 moved from B to C
Disk 1 moved from A to C

-----
Process exited after 29.25 seconds with return value 0
Press any key to continue . . . |
```