

Programming Fundamentals

Assignment No.4 - (Outputs)

Output No.1

```
Enter size of array = 5
Enter elements = 1 2 3 4 5

-----Menu-----
1. Grow from Front
2. Grow from End
3. Grow at Position
4. Shrink from Front
5. Shrink from End
6. Shrink at Position
0. Exit
Enter your choice = 1
Enter value to insert at front = 0
Array = 0 1 2 3 4 5
```

```
-----Menu-----
1. Grow from Front
2. Grow from End
3. Grow at Position
4. Shrink from Front
5. Shrink from End
6. Shrink at Position
0. Exit
Enter your choice = 2
Enter value to insert at end = 6
Array = 0 1 2 3 4 5 6
```

```
-----Menu-----
1. Grow from Front
2. Grow from End
3. Grow at Position
4. Shrink from Front
5. Shrink from End
6. Shrink at Position
0. Exit
Enter your choice = 3
Enter value and position to insert = 3 4
Array = 0 1 2 3 3 4 5 6
```

```
-----Menu-----
1. Grow from Front
2. Grow from End
3. Grow at Position
4. Shrink from Front
5. Shrink from End
6. Shrink at Position
0. Exit
Enter your choice = 4
Array = 1 2 3 3 4 5 6
```

```
-----Menu-----
1. Grow from Front
2. Grow from End
3. Grow at Position
4. Shrink from Front
5. Shrink from End
6. Shrink at Position
0. Exit
Enter your choice = 5
Array = 1 2 3 3 4 5
```

```
-----Menu-----
1. Grow from Front
2. Grow from End
3. Grow at Position
4. Shrink from Front
5. Shrink from End
6. Shrink at Position
0. Exit
Enter your choice = 6
Enter position to remove = 3
Array = 1 2 3 4 5
```

```
-----Menu-----
1. Grow from Front
2. Grow from End
3. Grow at Position
4. Shrink from Front
5. Shrink from End
6. Shrink at Position
0. Exit
Enter your choice = 0
Exiting program
Array = 1 2 3 4 5
```

File Outputs:



original_array - Notepad

```
File Edit Format View Help
1 2 3 4 5
```



updated_array - Notepad

```
File Edit Format View Help
1 2 3 4 5
```

Output No.2

```
Enter number of rows and columns = 3 3
Row 0: 1 2 3
Row 1: 4 5 6
Row 2: 7 8 9
```

```
-----Menu-----
```

```
1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit
```

```
Enter choice = 1
```

```
Enter 3 values = 0 0 0
```

```
Current Array =
```

```
0 0 0
1 2 3
4 5 6
7 8 9
```

```
-----Menu-----
```

```
1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit
```

```
Enter choice = 2
```

```
Enter 3 values = 10 11 12
```

```
Current Array =
```

```
0 0 0
1 2 3
4 5 6
7 8 9
10 11 12
```

```
-----Menu-----
```

```
1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit
```

```
Enter choice = 4
```

```
Current Array =
```

```
1 2 3
4 5 6
7 8 9
10 11 12
```

```
-----Menu-----
```

```
1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit
```

```
Enter choice = 5
```

```
Current Array =
```

```
1 2 3
4 5 6
7 8 9
```

```
-----Menu-----
```

```
1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit
```


```
Enter choice = 6
```

```
Enter position = 1
```

```
Current Array =
```

```
1 2 3
7 8 9
```

File Outputs:

 original_array - Notepad

File Edit Format View Help

1 2 3

4 5 6

7 8 9

 updated_array - Notepad

File Edit Format View Help

1 2 3

7 8 9

Output No.3

```
Enter number of rows = 3
For row 0
Enter number of columns for the row = 2
Enter 2 values = 1 2
For row 1
Enter number of columns for the row = 3
Enter 3 values = 1 2 3
For row 2
Enter number of columns for the row = 4
Enter 4 values = 1 2 3 4
```

Current Jagged Array =

Row 0 = 1 2

Row 1 = 1 2 3

Row 2 = 1 2 3 4

-----Menu-----

1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit

Enter choice = 1

Enter number of columns for the row = 1

Enter 1 values = 1

Current Jagged Array =

Row 0 = 1

Row 1 = 1 2

Row 2 = 1 2 3

Row 3 = 1 2 3 4

-----Menu-----

1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit

Enter choice = 2

Enter number of columns for the row = 5

Enter 5 values = 1 2 3 4 5

Current Jagged Array =

Row 0 = 1

Row 1 = 1 2

Row 2 = 1 2 3

Row 3 = 1 2 3 4

Row 4 = 1 2 3 4 5

-----Menu-----

1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit

Enter choice = 3

Enter position = 3

Enter number of columns for the row = 3

Enter 3 values = 1 2 3

Current Jagged Array =

Row 0 = 1

Row 1 = 1 2

Row 2 = 1 2 3

Row 3 = 1 2 3

Row 4 = 1 2 3 4

Row 5 = 1 2 3 4 5

-----Menu-----

1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit

Enter choice = 4

Current Jagged Array =

Row 0 = 1 2

Row 1 = 1 2 3

Row 2 = 1 2 3

Row 3 = 1 2 3 4

Row 4 = 1 2 3 4 5

-----Menu-----

1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit

Enter choice = 5

Current Jagged Array =

Row 0 = 1 2

Row 1 = 1 2 3

Row 2 = 1 2 3

Row 3 = 1 2 3 4

```

-----Menu-----
1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit
Enter choice = 6
Enter position = 1


Current Jagged Array =
Row 0 = 1 2
Row 1 = 1 2 3
Row 2 = 1 2 3 4

-----Menu-----
1. Add row at front
2. Add row at end
3. Add row at position
4. Remove row from front
5. Remove row from end
6. Remove row at position
0. Exit
Enter choice = 0
Exiting the program


Current Jagged Array =
Row 0 = 1 2
Row 1 = 1 2 3
Row 2 = 1 2 3 4

```

File Outputs:

 original_jagged_array - Notepad

File	Edit	Format	View	Help
2	1	2		
3	1	2	3	
4	1	2	3	4

 updated_jagged_array - Notepad

File	Edit	Format	View	Help
2	1	2		
3	1	2	3	
4	1	2	3	4
