

## Patrick Star DSA Program

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===== Data Structures =====

Choose:

1. Array
2. Queue
3. Stack
4. Linked List
5. Binary Search Tree
6. Graph Theory

Enter Choice:

(Under Data Structures)

If user chooses '**Array**':

- Create array
- Show original
- Show sorted
- Search element
- Go back

If user chooses '**Queue**':

- Create queue
- Display Queue
- Check if full
- Check if empty
- Enqueue/insert
- Dequeue/remove
- Get front/first element
- Get rear/last element
- Go back

If user chooses '**Stack**':

- Push
- Pop
- Peek
- Check if empty
- Display Stack
- Go back

If user chooses '**Linked List**':

- Append node
- Delete node by value
- Delete node at a given position
- Display Linked List
- Go back

If user chooses '**Binary Search Tree**':

- In order traversal
- Pre order traversal
- Post order traversal
- Go back

If user chooses '**Graph Theory**':

- Create graph
- Show adjacency list
- Show adjacency matrix
- Go back