### **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 shorted
- 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
- Delete node at a given position
- Display Linked List
- Go back

## If user chooses 'Binary Search Tree':

- Display 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