

## MERMAID CODE FOR BUBBLE SORT:

flowchart TD

```
A[Start] --> B[Initialize array]
B --> C[Set target value]
C --> D[Set initial boundaries]
D --> E[Repeat until found or exhausted]
E --> F[Find middle element]
F --> G[Compare with target]
G --> |Equal| H[End (target found)]
G --> |Greater| I[Adjust range to lower half] --> E
G --> |Less| J[Adjust range to upper half] --> E
E --> |Exhausted| K[End (target not found)]
```

## MERMAID CODE FOR BINARY SEARCH:

flowchart TD

```
A[Start] --> B[Initialize array]
B --> C[Set target value]
C --> D[Set initial boundaries]
D --> E[Repeat until found or exhausted]
E --> F[Find middle element]
F --> G[Compare with target]
G --> |Equal| H[End - Target found]
G --> |Greater| I[Adjust range to lower half] --> E
G --> |Less| J[Adjust range to upper half] --> E
E --> |Exhausted| K[End - Target not found]
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