

### **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]
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D --> E[Repeat until found or exhausted]
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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]
```