

GraphSearch

```
classDiagram
    class GraphSearch
    class Result
    class Problem
    class Action
    class State
    GraphSearch "1" *-- "1" Result
    GraphSearch "1" *-- "1" Problem
    Problem "1" *-- "1" Action
    Problem "1" *-- "1" State
    Action "1" *-- "1" State
```

The diagram illustrates the structural relationships between five classes: GraphSearch, Result, Problem, Action, and State. GraphSearch is at the top and is composed of Result and Problem. Problem is composed of Action and State. Finally, Action and State are also composed of each other, forming a mutual dependency or a self-referencing structure.

Result

Problem

Action

State