Agents

Multiple rounds of tool calling to interact with the world

- Multiple rounds of tool use to accomplish some user-defined goal, instead of focusing on conversation

- Multi-agent systems use multiple LLMs with developer-defined personas to give each agent a certain "expertise"

- These roles are defined by a human expert pre-hoc

Agent Task	Example Tools
Travel Planning	Flight Search, Restaurant Search, Attraction Search
Computer Interaction	Click At Position, Press Keyboard Button
Web Shopping	Go to URL, Go Back, Click Web Button

```
SoftwareCompany
+Investment
+Idea
+Environment
```

```
Boss
+BossRequirement
```

```
ProductManager
+WritePRD
+RevisePRD
```

```
Architect
+WriteDesign
+ReviseDesign
+ReviewPRD
+ReviewCode
```

```
ProjectManager
+WriteTasks
+AssignTask
+ReviewPRD
+ReviewDesign
+ReviewCode
```

```
Engineer
+WriteCode
+ReviewCode
+DebugCode
```
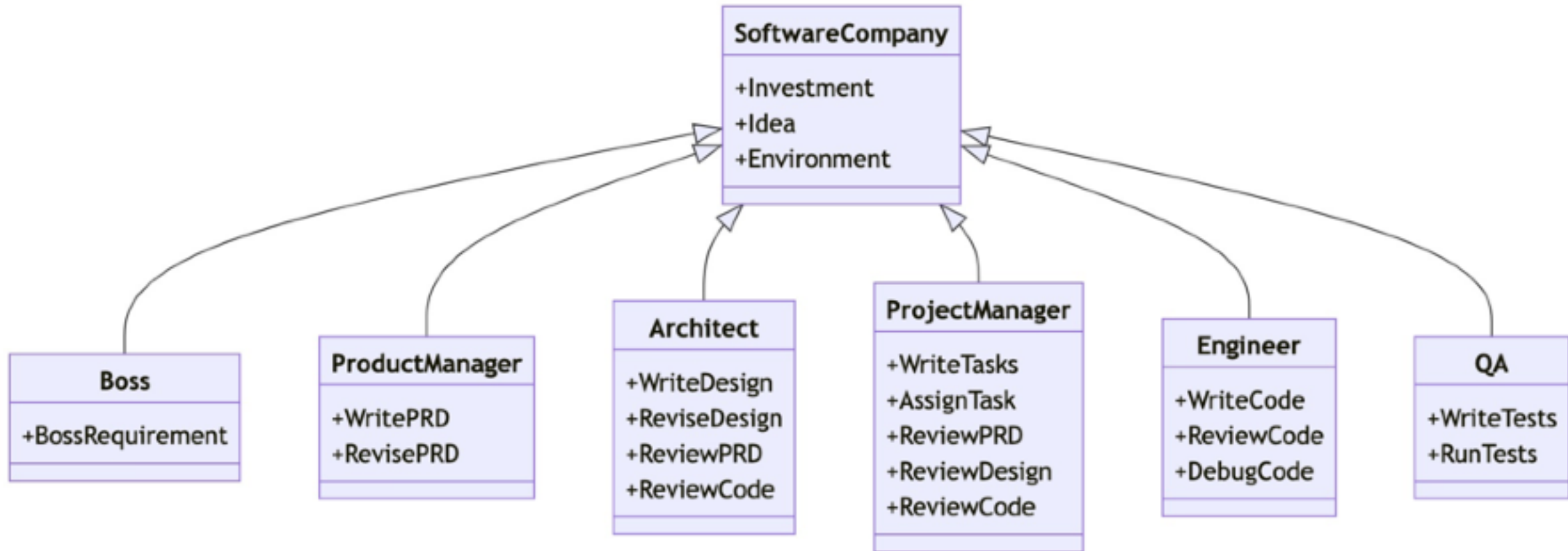
```
QA
+WriteTests
+RunTests
```

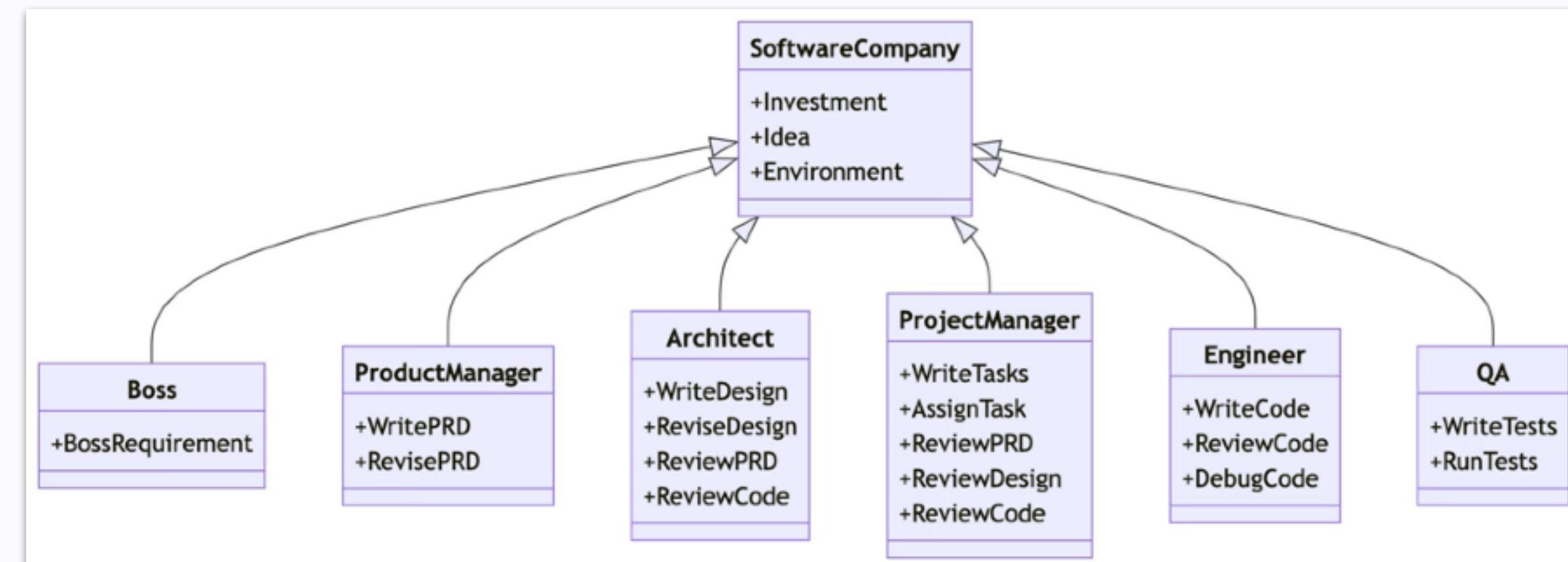Figure from MetaGPT (Hong et al., 2024)

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Recursive Multi-Agent Systems

Self-organizing agents for complex tasks