**3.2 Requirements Specification & Organization**

From the initial product specification and the requirements and refinements gathered in the interview, the identified ambiguities were removed to create a more descriptive requirements specification: “The resulting program of this project should be able to solve Life-and-Death Go problems. This should be done either independently by an AI and/or with user interaction via a GUI that shows the board and allows legal moves to be made. The AI should be able to be given an objective such as “defend group A” or “take group B” for either colour and be able act accordingly. The problem difficulty for the AI to solve should be 15 Kyu (on a range from 30 Kyu - 9 Dan) and it should solve the problem correctly with a success rate of at least 80%. This will be assessed by using an unspoiled testing set that meets these requirements.”

Using this new specification, the planning of the program began. First, the GameEngine, the GUI, and the AI were identified as the three main components of the program. As the GUI and AI could not work without the underlying GameEngine, the GameEngine was the first milestone. The GameEngine was split up between all members of the team, where each person then had a section to implement. This first milestone was completed in November when a text based UI was also created so that it was possible to interact with the program before the GUI was implemented.

After the GameEngine was implemented, the team was split into two: Eilidh, Jamie, and Scott began working on the GUI; and Kiril and Niklas began working on the AI. The AI was identified to us by Dr. John O’Donnell as being the bulk of the work in this project, so the GUI was planned to be finished in January, so that the GUI team would be able to join Kiril and Niklas in working on the AI from January until the end of this project in March.

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