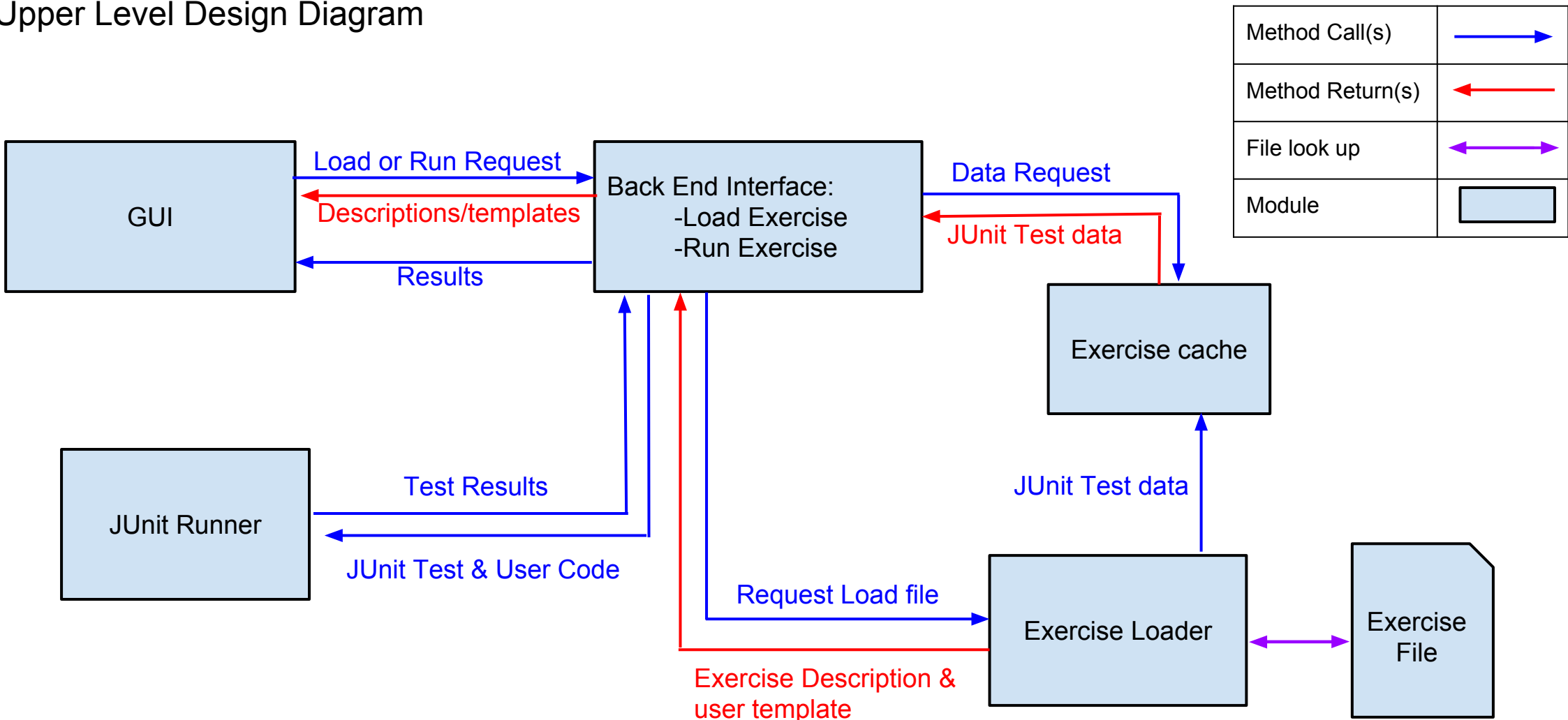


Upper Level Design Diagram



User Story Flows

**Running an exercise successfully:**

- GUI request the exercise to be run and passes the users encompassed method/code to the Back end interface.
- The back end interface retrieves the JUnit test within the Exercise cache and passes both the Test and methods onto the JUnit Runner.
- The Junit runner splices and compiles the code and returns a now running notification to the back end(which in turn returns to the GUI)
- The Junit runner then runs the Junit test with the users code and sends the Results to the Back end interface when finished.
- The back end Interface passes the Results to the GUI.
- The gui interprets the Results and updates its display accordingly

**Running an exercise Unsuccessfully:**

- GUI request the exercise to be run and passes the users encompassed method/code to the Back end interface.
- The back end interface retrieves the JUnit test within the Exercise cache and passes both the Test and methods onto the JUnit Runner.
- The Junit Runner splices, and attempts to compile the code but gets an error.
- The Junit Runner returns the error to the interface.
- The back end Interface passes the msg to the GUI.
- The gui interprets the error msg and updates its display accordingly

**Loading an exercise Successfully:**

- GUI request Excersize located at file "F" to be loaded from the interface.
- Interface passes the request to the Exercise loader, and waits for a response.
- The exercise loader locates the file and parses its contents into memory.
- The Exercise parser stores the JUnit data in the Exercise cash then returns the Exercise description and User template to the interface.
- The user interface passes the Exercise description and User template on to the GUI to be displayed on the screen.

**Loading an exercise Unsuccessfully:**

- GUI request Excersize located at file "F" to be loaded from the interface.
- Interface passes the request to the Exercise loader, and waits for a response.
- The exercise loader fails to locate the file and returns an error message.
- The user interface passes the error on to the GUI to be displayed on the screen.