Google Home Trivia App Software Detailed Design Report
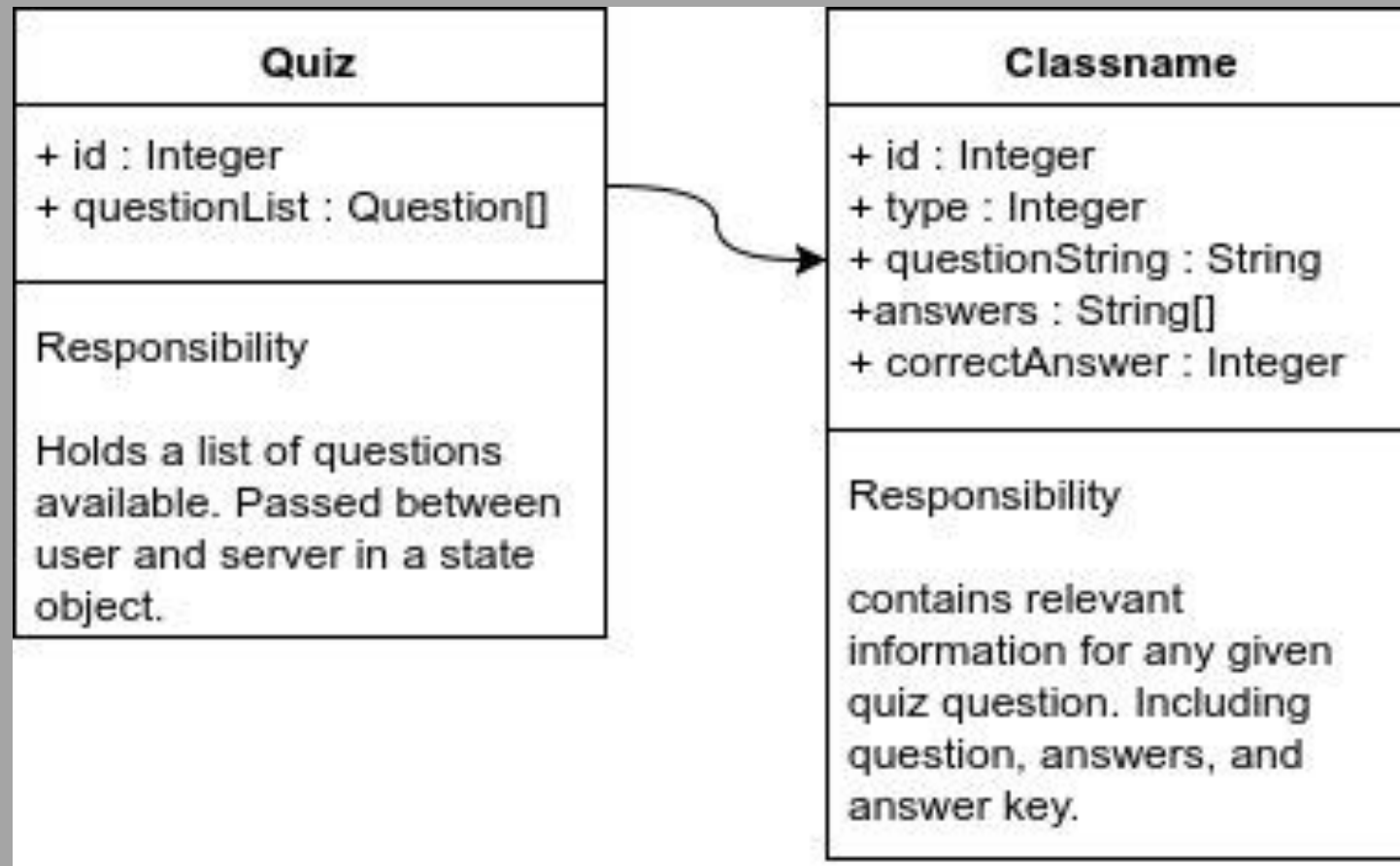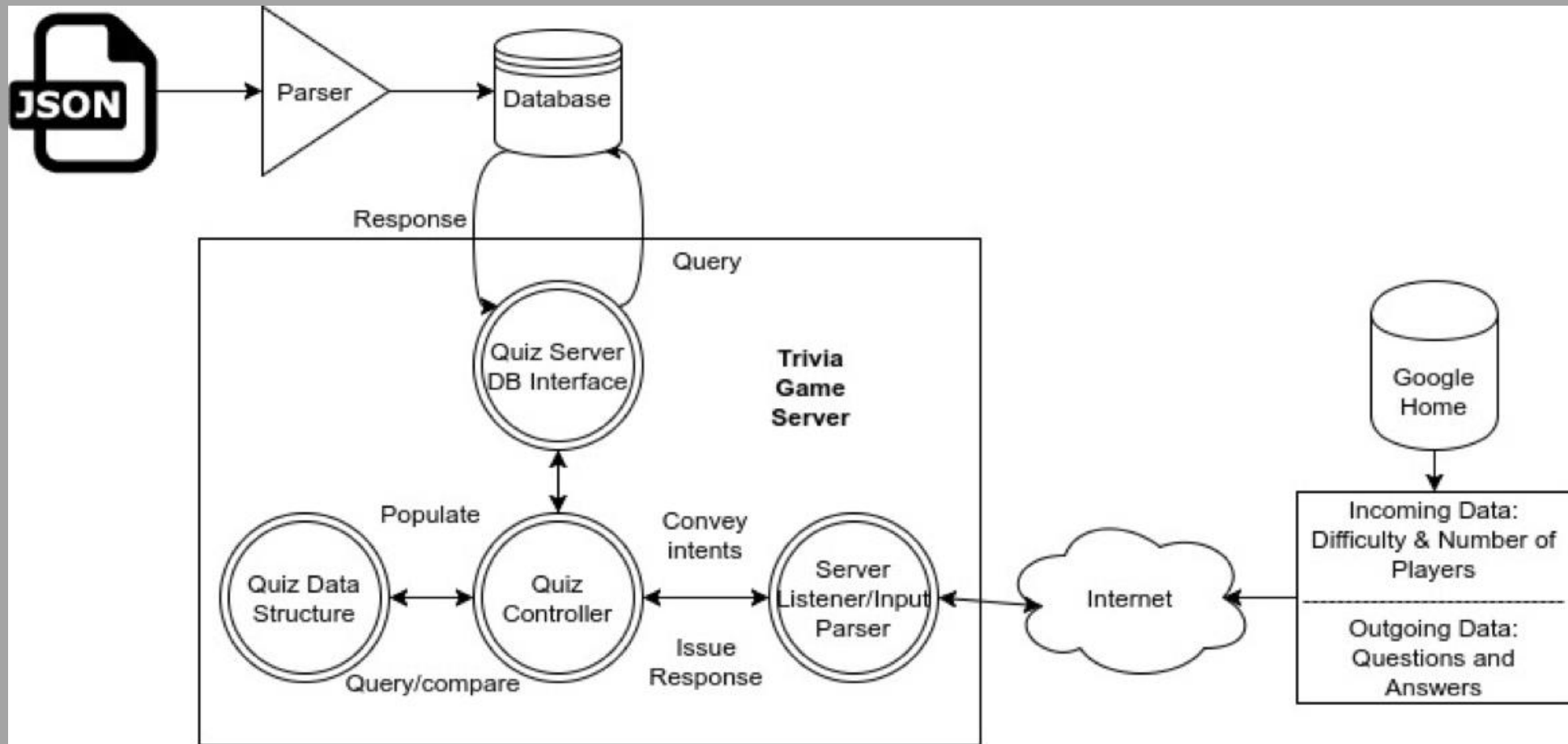
Team MGN

Joseph Olin, Ben Pister, Michael Roark

Data Structures

Quiz

+ id : Integer
+ questionList : Question[]

Responsibility

Holds a list of questions available. Passed between user and server in a state object.

Classname

+ id : Integer
+ type : Integer
+ questionString : String
+answers : String[]
+ correctAnswer : Integer

Responsibility

contains relevant information for any given quiz question. Including question, answers, and answer key.

Architecture

Interface Design

- exports.triviaHandler = functions.https.onRequest((req, res) => {}
  - The "Server Listener"
  - The handler that catches the web request from the Google Home client

- loadQuiz
  - The "Quiz Server DB Interface"
  - Loads quiz Question set into conversation session
  - Can load from another Node.js module or via a database query

Procedural Design

- triviaHandler (command interpreter)

- welcomeMessage

- getNumberOfPlayers

- getDifficulty

- loadQuiz

- buildQuestionString

- retrieveQuestion

- getAnswerMessageString

- isGameOver