# Geek Off 2021 Functional requirements

## Round 2

Round 2 game play is in the style of “Fast Money” from Family Feud. This round consists of the following:

* 5 survey style questions asked to the contestant
* Two players play, one after the other
* Both players are going for the highest combined score
* Since answers are variable, points for each answer must be determined by person scoring the question
* Answers and points are displayed one at a time per side.
* After the first round of answers are reviewed, the answers are covered up and the second contestant is asked the same questions.
* The first contestant has 20 seconds. The second has 25 seconds. If the second contestant gives the same answer, a buzzer sounds and the contestant must try again.

Control of this round will be completely from the judge’s table and done on a desktop computer. The required elements are:

* Countdown timer screen
* Results screen. This screen should have 4 columns:
  + Player 1 answer
  + Player 1 score
  + Player 2 answer
  + Player 2 score
  + Each answer reveal should be animated
  + Visual style will be that of a 1980s dot matrix board with a black background, yellow text, in the Fast Money 3 font referenced in the Github repo.
  + Below the 5 answers, there will be one line with TOTAL - and the total score. The score value will be 3 digits.
  + Answers are limited to 11 characters and will be truncated based on length.
  + Results screen should require authorization and authentication
  + Sample images:  
    A close-up of a computer chip

    Description automatically generated with low confidence  
    A group of people in a room

    Description automatically generated with low confidence
* Control/judging table screen. This screen should be behind authentication and limited to control users.
  + List of question and answers from the database
  + Ability to enter the answer and points for the question
  + Save the question and points to the database table
  + Limit ability to enter answers to 11 characters
  + Associated API must require the proper authorization
  + Finalize the round
* Host screen. This screen should be behind authentication and limited to control users.
  + Screen should be mobile first
  + Will show the questions but no answers
  + Associated API must require authorization

## Round 1

Round 1 has historically been handled via pen and paper. The basic flow of round 1 is as follows:

* Host asks the question as shown on the screen
* If multiple choice, answers are shown on the screen after the host asks the question
* Think music plays
* Contestants write their answers and hold them up when called to do so
* Host announces teams to judging table who logs scores in the PHP scoring system

Round 1 consists of 15 questions and can include video, images or just text. Screen displays have historically been done by Powerpoint.

The requested ask consists of the following:

Contestant view

* Contestants will log in with AA email address using Azure AD to system. System will look at login to determine team. Users will be associated to team in advance.
  + Azure EasyAuth or MSAL may be used for login flow. It is acceptable to allow any domain for login (not restrict to AA AD), but list of users must be limited to contestants and organizers.
  + When message is received from judging table, phone will show the question.
  + When message is received from judging table, phone will allow answer selection or text entry
  + Judging table can stop entry of answers (restrict question/end question) at any time
  + Answers should be stored in staging table and not immediately visible on scoreboard
  + Visual style is completely up to the designer

Control screen/Judging table view

* Control screen will do the following:
  + Set the current question. This can be automatically advanced but also must be able to be set manually
  + Show graphics and video for question, if a flag is set for the question. Graphics can also be shown along with the answer, or videos may be shown after the answer manually.
  + Show answers for current question (can be tied to open for responses)
  + Open the current question for responses
  + Close the current question from responses
  + Start and stop audio playback. A minimum of 6 think cues are required, and each question should be associated to a think cue. Cues will be stored on the app service as an asset in MP4 format.
  + Show the answer for the question as well as the team answers
  + Manually score questions
  + Automatically score multiple choice answers based on judge action. (Click to score)
  + Support 17 questions in this flow – 15 automatic and 2 tiebreakers.
  + Finalize the round (store final results)
  + This screen should be behind authentication and limited to control users.
  + APIs should also require authorization

Team setup

* Screen to administer teams. This is a recreation of today’s system:
  + Interface to manage team members by name and email
  + Interface to change team name
  + Interface to enter in dollar amounts raised
  + This screen should be behind authentication and limited to control users.
  + APIs should also require authorization

Intro screens

* Several intro screens are required:
  + Game show theme/intro movie – play a MP4 movie
  + Teams – list of teams from team setup
  + Rules – fixed text. Animated per rule.
  + After last screen, transition into Question Screen for question 1

Question screen (big board)

* This will show the question, answers, and any associated multimedia in a template format
  + Screen should be dynamic based on control system
  + Show question based on control
  + Show answers based on control, if multiple choice
  + Show correct answer after question is closed
  + Play any videos required and audio cues based on control screen
  + All text must be animatable
    - Visual style is 1970s game show – beige is in here with diamonds and geometrics, and Goodson-Todman asterisks in a flower style
    - Question should be hidden behind a slider style graphic
    - Graphics/videos should appear on demand
    - Answers should fade in on animation
    - Screen should transition when there is a new question

Scoreboard

* This will show the scoreboard of all teams and the total score
* Visual style is same as 1970s Family Feud dot matrix board/round 2
* Team #, team name, 17 answer spaces, total, and rank should be shown
  + Rank is only shown after the round is finalized
* Total score includes bonus points from fundraising
  + Historically this was 1 point for every $5 between $100 and $200 raised
* Scoreboard must update automatically when score table is updated

# Technical requirements

* Front end: Angular
* API: .NET Core
* DB: Postgres
* All components hosted in Azure
* Azure Active Directory authentication authorization is required
* Suggested, but not required to use Azure SignalR. Event hub may also be considered, but real time automatic updates of Angular sites is a requirement.
* 3 roles:
  + Contestant
  + Control
  + Host

# Data design

Question IDs are in the format 101, 201, 301 where in order:

* 101-115 are round 1 normal questions
* 116-117 are round 1 tiebreakers
* 201-205 are round 2 normal questions
* 206 is round 2 tiebreaker
* 301-304, 311-314, 321-324, 331-334, 341-344 are Round 3 questions
* 350 is Final Jeopardy

Yevent is the master field for the event. This is stored in the format “exx”, where xx is the year. In the legacy scoring system, mxx was used for media day events. For 2021, this value will be “e21”.