# INVISIBLE INFLUENCES: DATA QUESTIONNAIRE & VISUALIZATION FOR PROFESSIONAL DEVELOPMENT BUSINESS USE

Presenters: Christopher Griffin & Hunter Walker

Faculty Advisor: Dr. Jan Wilms

# WHY DID WE CHOOSE THIS PROJECT?

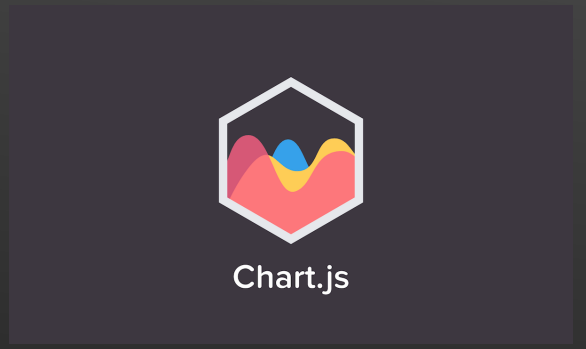
- Service-based
- Personal Investment
- Learning Objectives

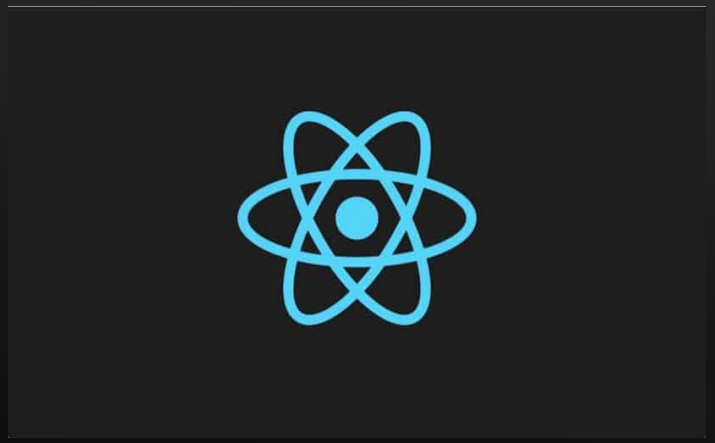
# PROJECT OBJECTIVES:

- Webpage
- Questionnaire
- Algorithm
- Visualization
- Hosting
- Data Storage

# SOFTWARE/SERVICES USED:

- HTML 5
- Java Script
- CSS
- Chart.js
- React
- AWS Amplify
- AirTable

# FRONT END:

# POPULATING QUESTIONS WITH QUERY SELECTION:

```
925
926         const container = document.querySelector('.quiz-container');
927         const questionEl = document.getElementById('question');
928         const option1 = document.querySelector('.option1');
929         const option2 = document.querySelector('.option2');
930         const option3 = document.querySelector('.option3');
931         const option4 = document.querySelector('.option4');
932         const option5 = document.querySelector('.option5');
933         const nextButton = document.querySelector('.next');
934         const previousButton = document.querySelector('.previous');
935         const restartButton = document.querySelector('.restart');
936         const result = document.querySelector('.result');
937
938         //Function to generate question
```

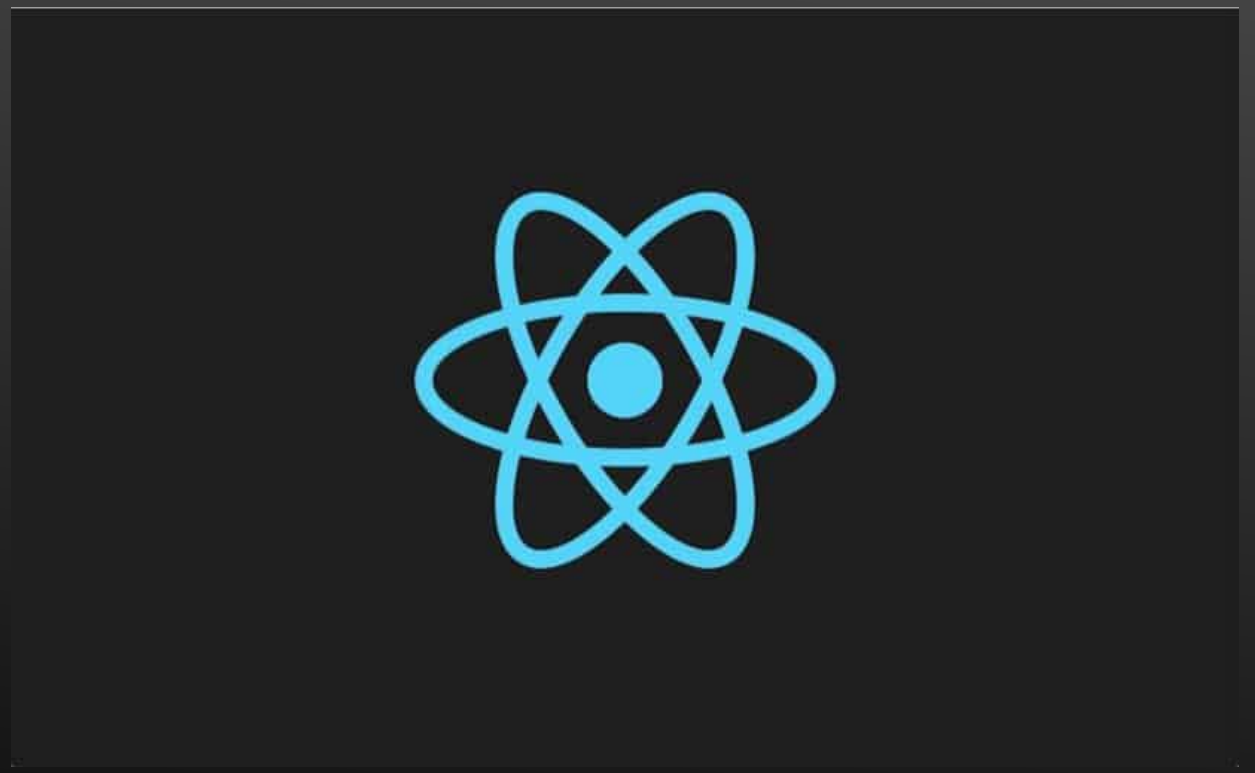
# BUILDING THE QUESTIONNAIRE:

```
12
13      <div class="quiz-container">
14          <div class="title">Bias Assesment Questionnaire</div>
15          <div id="question" class="question"></div>
16          <label class="option">
17              <input type="radio" name="option" value="1" />
18              <span class="option1"></span>
19          </label>
20          <label class="option">
21              <input type="radio" name="option" value="2" />
22              <span class="option2"></span>
23          </label>
24          <label class="option">
25              <input type="radio" name="option" value="3" />
26              <span class="option3"></span>
27          </label>
28          <label class="option">
29              <input type="radio" name="option" value="4" />
30              <span class="option4"></span>
31          </label>
32          <label class="option">
33              <input type="radio" name="option" value="5" />
34              <span class="option5"></span>
35          </label>
```

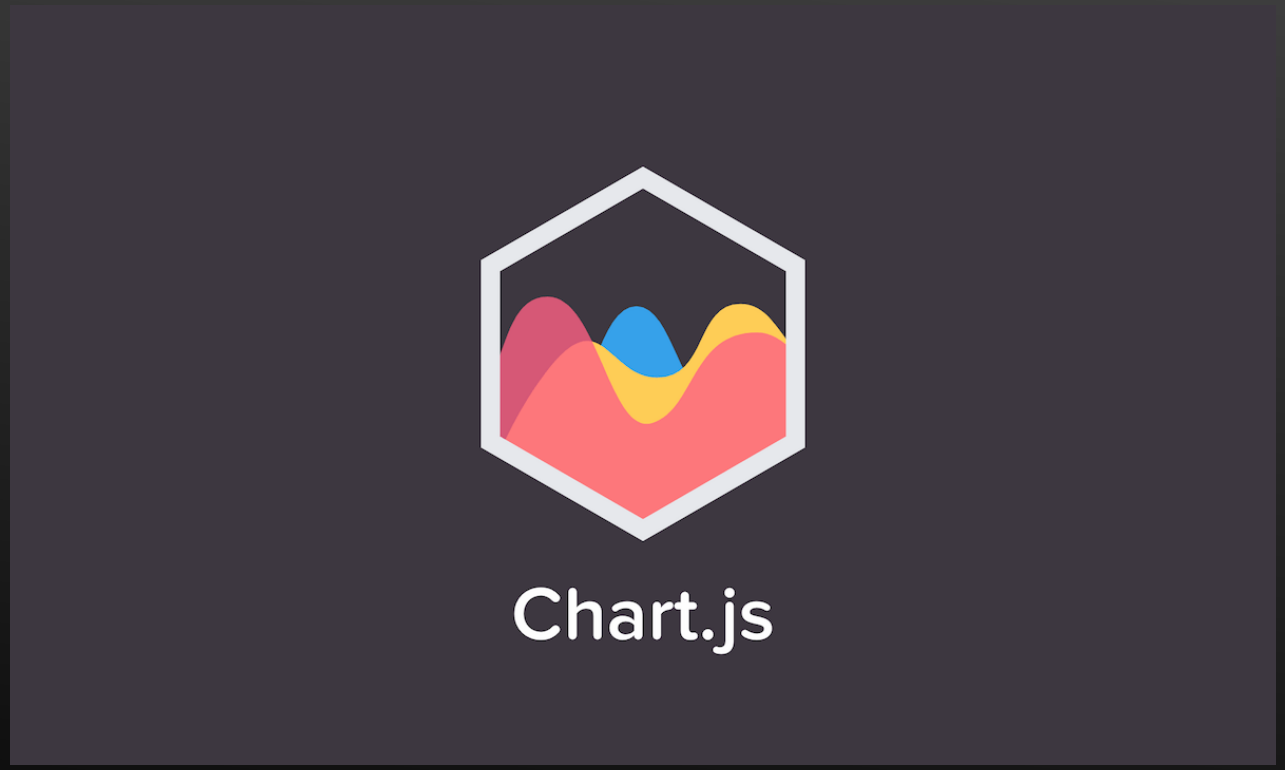
# CREATIVITY IN CSC: SMALL DETAILS MATTER

```
.option:hover {
  background: lightblue;
}
```

# REACT



# VISUALIZATION:



# CHART.JS:

```
// The data for our dataset
data: {
    title: 'All Influences - Visualization',
    labels: [
      'Appearance', 'Race/Culture', 'Disability',   // Grouped according to the Individual Category
      'Politics/Issues', 'Religion', 'Age',         // Grouped according to the Philsophical Category
      'Vocation', 'Education', 'Socioeconomics',    // Grouped according to the Positional Category
    'Gender (M/F)', 'LGBTQ+', 'Family/Marriage'],   // Grouped according to the Relational Category
    datasets: [{
        label: 'First Dataset',
        data: [9, 9, 12, 16, 12, 4, 13, 7, 6, 16, 7, 10], //data that is actually rendered in the chart
```

# CHART.JS

```
backgroundColor: [
  //Grouped according to the Individual Category
  'rgb(0, 0, 175)', //dark blue
  'rgb(0, 0, 200)', //deep blue
  'rgb(0, 0, 255)', //primary blue
  //Grouped according to the Philsophical Category
  'rgb(100, 0, 150)', //dark purple
  'rgb(100, 0, 175)', //deep purple
  'rgb(100, 0, 200)', //netrual purple
  //Grouped according to the Positional Category
  'rgb(255, 100, 0)', //deep orange
  'rgb(255, 150, 0)', //mid orange
  'rgb(255, 175, 0)', //burnt yellow
  //Grouped according to the Relational Category
  'rgb(0, 150, 0)', //dark green
  'rgb(0, 200, 0)', //deep green
  'rgb(0, 255, 0)', //kelly green
```

```
borderColor: [
  //Grouped according to the Individual Category
  'rgb(0, 0, 150)',
  'rgb(0, 0, 175)',
  'rgb(0, 0, 255)',
  //Grouped according to the Philsophical Category
  'rgb(100, 0, 200)',
  'rgb(100, 0, 175)',
  'rgb(100, 0, 150)',
  //Grouped according to the Positional Category
  'rgb(255, 100, 0)',
  'rgb(255, 150, 0)',
  'rgb(255, 175, 0)',
  //Grouped according to the Relational Category
  'rgb(0, 150, 0)',
  'rgb(0, 200, 0)',
  'rgb(0, 255, 0)',
```

# CHART.JS

```
// Configuration options go here
options: {
  plugins: {
    title: {  // Here are all the configuration options regarding the chart's title
      display: true,
      text: 'Displaying Total Score of All Bias Categories',
      color: 'rgb(0,0,0)',
      position: 'top',
      font: {
        size: 36,
        family:'Arial',
      },
      padding: {
        top: 10,
        bottom: 10,
      }
    },
    legend: { // Here are all the configuration options regarding the chart's legend
    position: 'left',
    align: 'center',
    fullWidth: true,
    labels: {
      color: 'rgb(0,0,0)',
        font:{
          size: 18,
          family: 'Arial'
        }
    },
  },
  response: true,
  maintainAspectRatio: true,
}
}
```

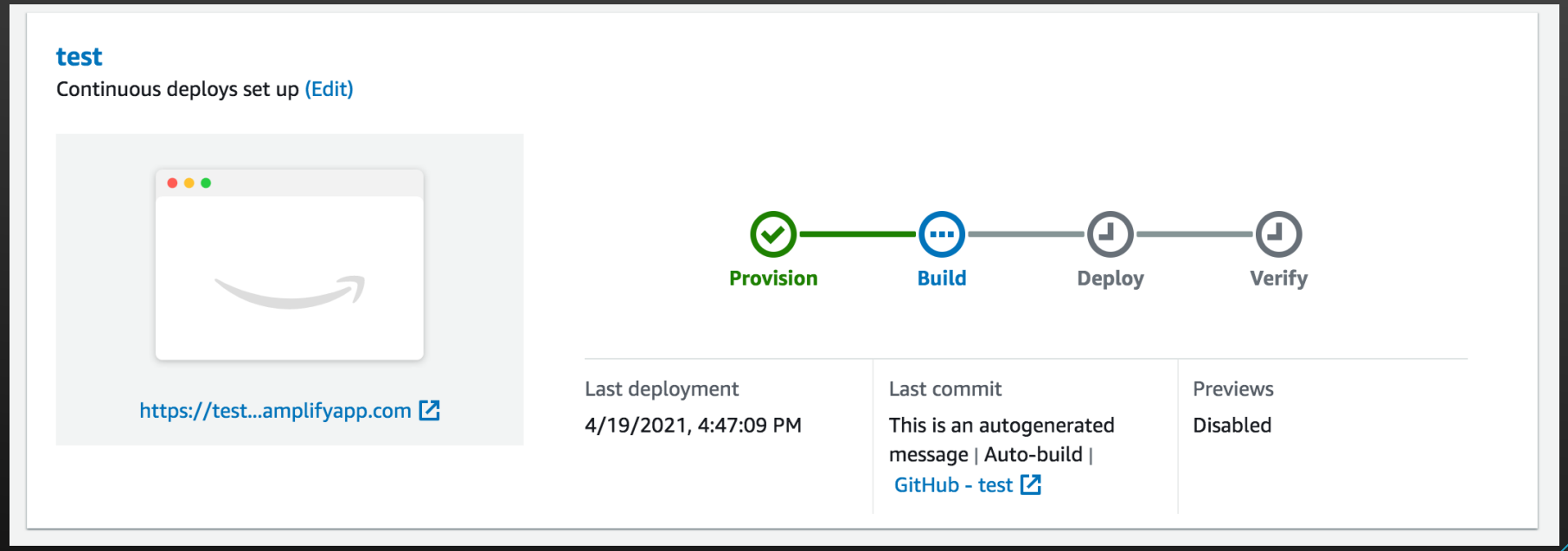
# CHART.JS

```
// The data for our dataset
data: {
    title: 'Each Individual Assessment Factor',
    labels: [
      'Appearance', 'Race/Culture', 'Disability',   // Grouped according to the Individual Category
      'Politics/Issues', 'Religion', 'Age',         // Grouped according to the Philsophical Category
      'Vocation', 'Education', 'Socioeconomics',    // Grouped according to the Positional Category
    'Gender (M/F)', 'LGBTQ+', 'Family/Marriage'],   // Grouped according to the Relational Category
    datasets: [
     { //start of comfort zone dataset
        label: 'Comfort Zone',
        data:[3, 2, 1, 4, 3, 1, 2, 2, 1, 4, 0, 2], //static data that will need to be replaced by live data
        borderColor: 'rgb(0, 255, 50)', //bright green
     }, //end of comfort zone dataset
     { //start of early life exposture dataset
        label:'Early Life Exposure',
        data:[1, 2, 3, 4, 2, 1, 4, 1, 1, 4, 1, 2], //static data that will need to be replaced by live data
        borderColor: 'rgb(0,200,200)', //green-blue
     }, //end of early life exposure dataset
     { //start of recent life interation dataset
        label:'Recent Life Interaction',
        data:[1, 3, 4, 4, 4, 1, 3, 3, 1, 4, 2, 4], //static data that will need to be replaced by live data
        borderColor:'rgb(100, 0, 200)', //netrual purple
     }, //end of recent life interaction dataset
     { //start of experience favorability dataset
        label:'Experience Favorability',
        data:[4, 2, 4, 4, 3, 1, 4, 1, 3, 4, 4, 2], //static data that will need to be replaced by live data
        borderColor:'rgb(255,50,0)', //primary red
     } //end of experience favoriability datatset
    ]
},//the end of the data portion
```

# HOSTING:

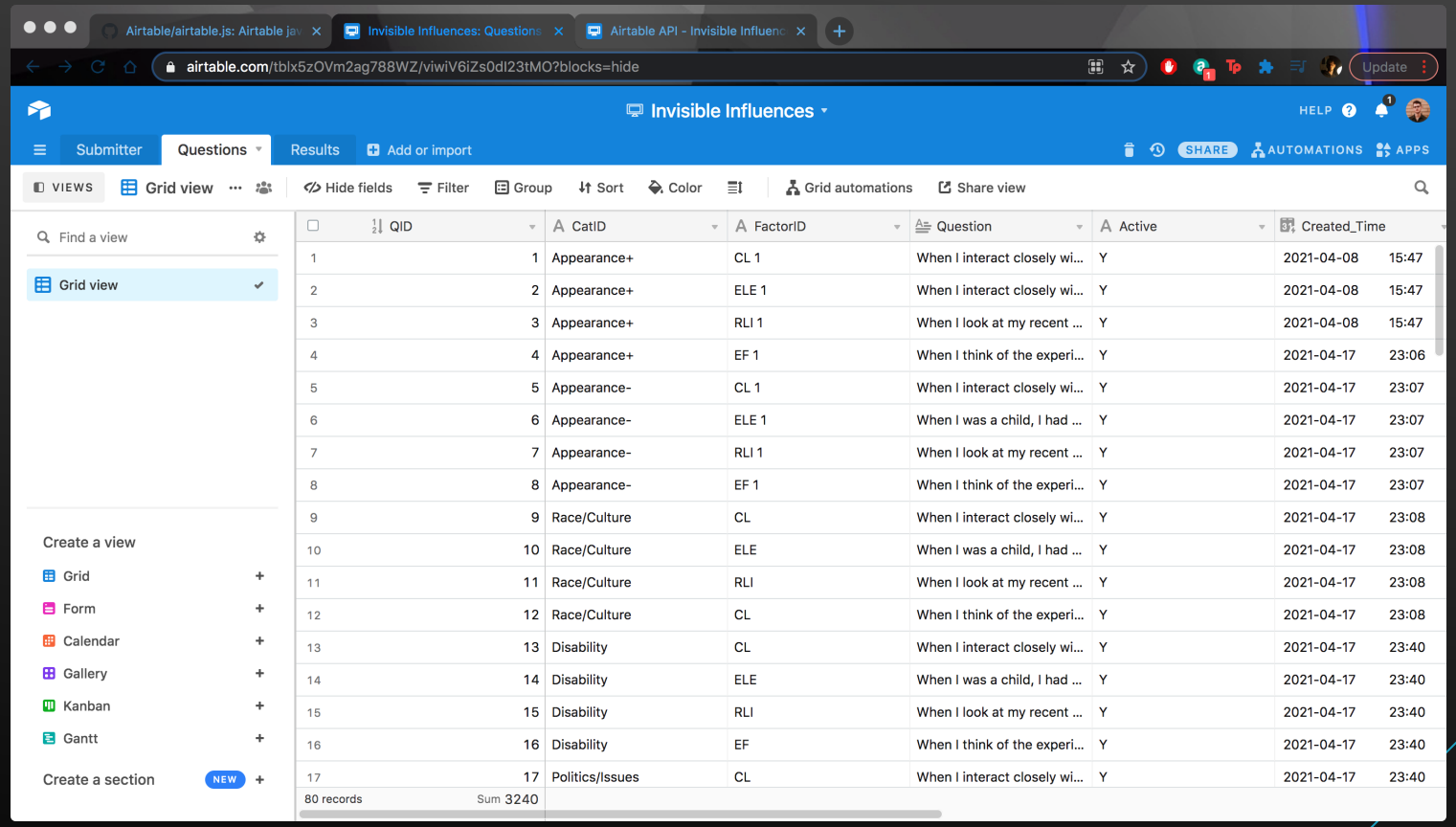
# AWS AMPLIFY:

# AWS AMPLIFY:

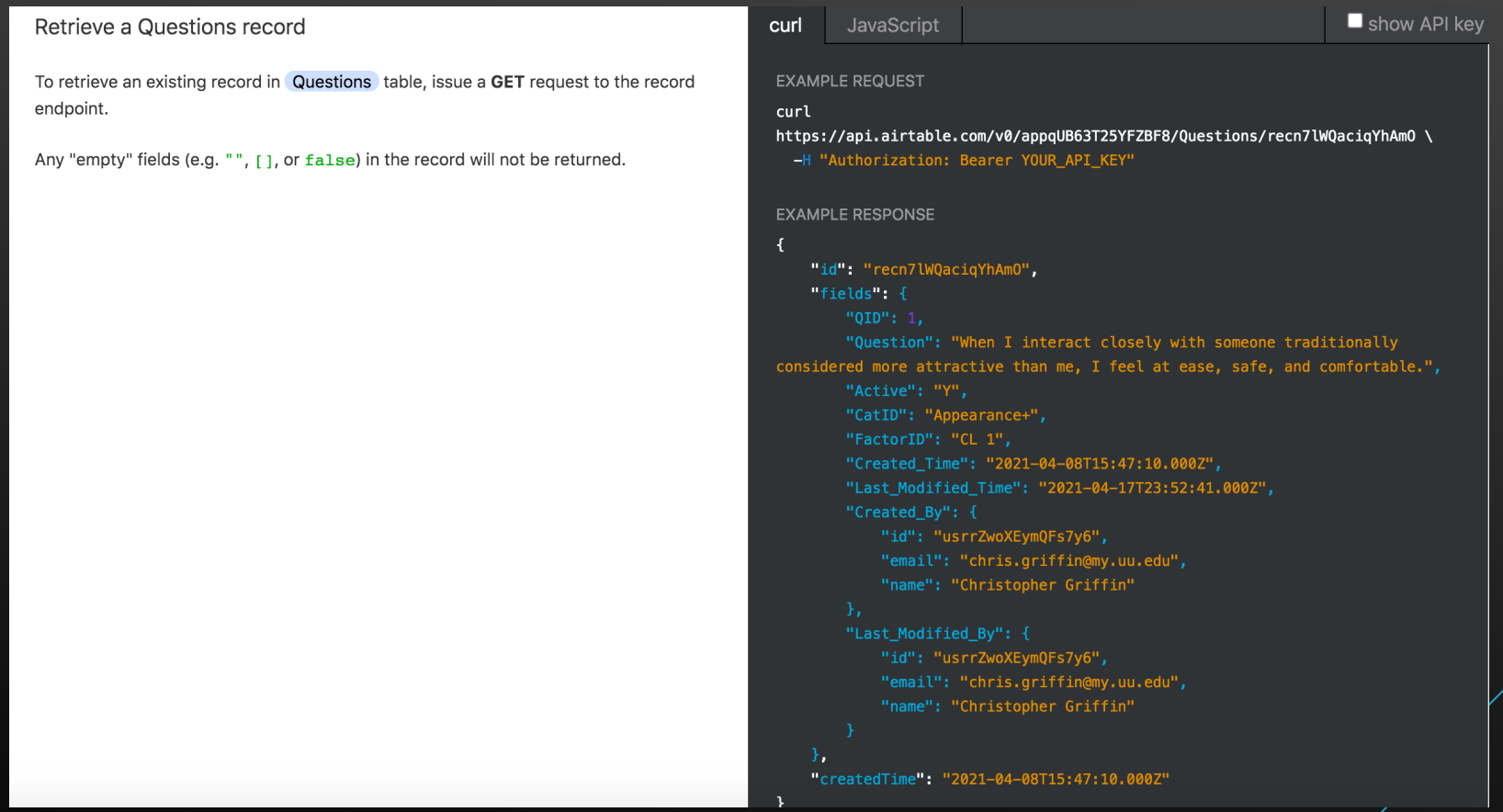

test
Continuous deploys set up (Edit)
https://test...amplifyapp.com
Provision
Build
Deploy
Verify
Last deployment
4/19/2021, 4:47:09 PM
Last commit
This is an autogenerated message | Auto-build |
GitHub - test
Previews
Disabled

# BACKEND:

# AIRTABLE:


Airtable/airtable.js: Airtable jav
Invisible Influences: Questions
Airtable API - Invisible Influenc
airtable.com/tblx5zOVm2ag788WZ/viwiV6iZs0dI23tMO?blocks=hide
Update
Invisible Influences
HELP
Submitter
Questions
Results
Add or import
SHARE
AUTOMATIONS
APPS
VIEWS
Grid view
Hide fields
Filter
Group
Sort
Color
Grid automations
Share view
Find a view
Grid view
Create a view
Grid
Form
Calendar
Gallery
Kanban
Gantt
Create a section
NEW
QID
CatID
FactorID
Question
Active
Created_Time
1 1 Appearance+ CL 1 When I interact closely wi... Y 2021-04-08 15:47
2 2 Appearance+ ELE 1 When I interact closely wi... Y 2021-04-08 15:47
3 3 Appearance+ RLI 1 When I look at my recent ... Y 2021-04-08 15:47
4 4 Appearance+ EF 1 When I think of the experi... Y 2021-04-17 23:06
5 5 Appearance- CL 1 When I interact closely wi... Y 2021-04-17 23:07
6 6 Appearance- ELE 1 When I was a child, I had ... Y 2021-04-17 23:07
7 7 Appearance- RLI 1 When I look at my recent ... Y 2021-04-17 23:07
8 8 Appearance- EF 1 When I think of the experi... Y 2021-04-17 23:07
9 9 Race/Culture CL When I interact closely wi... Y 2021-04-17 23:08
10 10 Race/Culture ELE When I was a child, I had ... Y 2021-04-17 23:08
11 11 Race/Culture RLI When I look at my recent ... Y 2021-04-17 23:08
12 12 Race/Culture CL When I think of the experi... Y 2021-04-17 23:08
13 13 Disability CL When I interact closely wi... Y 2021-04-17 23:40
14 14 Disability ELE When I was a child, I had ... Y 2021-04-17 23:40
15 15 Disability RLI When I look at my recent ... Y 2021-04-17 23:40
16 16 Disability EF When I think of the experi... Y 2021-04-17 23:40
17 17 Politics/Issues CL When I interact closely wi... Y 2021-04-17 23:40
80 records
Sum 3240

# AIRTABLE:



Retrieve a Questions record

To retrieve an existing record in Questions table, issue a **GET** request to the record endpoint.

Any "empty" fields (e.g. `""`, `[]`, or `false`) in the record will not be returned.

curl | JavaScript | show API key

EXAMPLE REQUEST

```
curl
https://api.airtable.com/v0/appqUB63T25YFZBF8/Questions/recn7lWQaciqYhAmO \
  -H "Authorization: Bearer YOUR_API_KEY"
```

EXAMPLE RESPONSE


```
{
    "id": "recn7lWQaciqYhAmO",
    "fields": {
        "QID": 1,
        "Question": "When I interact closely with someone traditionally
considered more attractive than me, I feel at ease, safe, and comfortable.",
        "Active": "Y",
        "CatID": "Appearance+",
        "FactorID": "CL 1",
        "Created_Time": "2021-04-08T15:47:10.000Z",
        "Last_Modified_Time": "2021-04-17T23:52:41.000Z",
        "Created_By": {
            "id": "usrrZwoXEymQFs7y6",
            "email": "chris.griffin@my.uu.edu",
            "name": "Christopher Griffin"
        },
        "Last_Modified_By": {
            "id": "usrrZwoXEymQFs7y6",
            "email": "chris.griffin@my.uu.edu",
            "name": "Christopher Griffin"
        }
    },
    "createdTime": "2021-04-08T15:47:10.000Z"
}
```

# AIRTABLE:

## Update Questions records

To update `Questions` records, issue a request to the `Questions` endpoint. A **PATCH** request will only update the fields you specify, leaving the rest as they were. A **PUT** request will perform a destructive update and clear all unspecified cell values. The example at the right uses the non-destructive **PATCH** method. Click here to show a destructive **PUT** request.

Your request body should include an array of up to 10 record objects. Each of these objects should have an `id` property representing the record ID and a `fields` property which contains all of your record's cell values by field name. You can include all, some, or none of the field values.

To link to new records in `Results 2`, add new linked record IDs to the existing array. Be sure to include all existing linked record IDs that you wish to retain. To unlink records, include the existing array of record IDs, excluding any that you wish to unlink.

`Question` may contain "mention tokens". A *mention token* corresponds to a "@mention" in Airtable's user interface; here in the API it will look like `<airtable:mention id="menE1i9oBaGX3DseR">@Alex</airtable:mention>`. Mention tokens cannot be created via this API and should be left intact (or wholly removed) when updating long text fields.

Values for `QID`, `Created_Time`, `Last_Modified_Time`, `Created_By` and `Last_Modified_By` are automatically computed by Airtable and cannot be directly updated. You cannot clear these, even with a `PUT` request.

Automatic data conversion for update actions can be enabled via `typecast` parameter. See create record for details.

curl | JavaScript | show API key

EXAMPLE REQUEST

```
curl -v -X PATCH https://api.airtable.com/v0/appqUB63T25YFZBF8/Questions \
  -H "Authorization: Bearer YOUR_API_KEY" \
  -H "Content-Type: application/json" \
  --data '{
  "records": [
    {
      "id": "recn7lWQaciqYhAmO",
      "fields": {
        "Question": "When I interact closely with someone traditionally
considered more attractive than me, I feel at ease, safe, and comfortable.",
        "Active": "Y",
        "CatID": "Appearance+",
        "FactorID": "CL 1"
      }
    },
    {
      "id": "reclc8xPVesnTSPQb",
      "fields": {
        "Question": "When I interact closely with someone traditionally
considered more attractive than me, I feel at ease, safe, and comfortable.",
        "Active": "Y",
        "CatID": "Appearance+",
        "FactorID": "ELE 1"
      }
    }
  ]
}'
```

# ANY QUESTIONS?

- Thank you!