

TailorD Sizing Algorithm

- User data measurements stored in Firebase
- Site data measurements loaded on content.js

Label key mapping array defined:

```
const filteredDataToMeasurementKeyMap = {  
  "bust or chest": "chest",  
  "hip": "hip",  
  "sleeve tall": "armslength",  
}
```

matrix & **style** are defined by the user.

Each line item in the site data that matches user-specified matrix and style values is a candidate.

Each candidate has a series of measurements and values. For each of these measurements, the difference between the user's measurement and the candidate's measurement is appended to a "difference" number representing this candidate's overall fit.

If either values are a range, the average is used:

```
if (candidateMeasurement.includes("-")) {  
  // Get average  
  const split = candidateMeasurement.split("-");  
  const first = parseFloat(split[0]);  
  const second = parseFloat(split[1]);  
  candidateMeasurement = (first + second) / 2;  
}
```

These candidates are then sorted by their difference value, and the top 1 is returned to the user:

```
let lowestDifference = null;  
let lowestDifferenceSize = null;  
  
const resultsKeys = Object.keys(results);  
resultsKeys.forEach((resultKey) => {  
  const result = results[resultKey];  
  if (lowestDifference == null || result.difference < lowestDifference) {  
    lowestDifference = result.difference;  
    lowestDifferenceSize = result  
  }  
})
```

Some processing is done to calculate the listed size, US size, pant size, etc.

The complete algorithm needs to be much improved and organized. Code quality is very bad right now, but this is a general idea of how it works.