WYSA AI TEST SCRIPTS

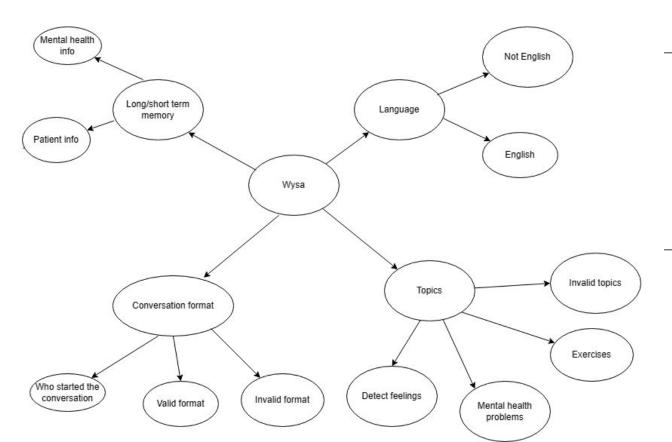
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INTRODUCTION

- We developed test scripts for Wysa app
- Platform: Android



TEST 4 MAIN TOPICS



- We test 4 main topics: Invalid topics,
 Exercises,
 Mental health problems and
 Detect feelings
- We also test
 features such as
 memory,
 conversation
 format and
 different
 language

TOOLS AND TECHNOLOGIES USED

- Appium as testing server
- Android Emulator
- Javascript as scripting language

SCRIPTING STEPS

- 1. Test script opens Wysa app
- 2. Test script enters the test input
- 3. Test script collects the output
- 4. Test script performs similarity score
- 5. Test script writes result to a file

TEST SCRIPT

```
// tap on the skip button
// let el21 = await driver.$("/hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/androic
// await el21.click();
  await driver.pause(5000);
  let textInput = "Let's get active " + Math.floor(Math.random() * 50);
  let expectedTextOutput = "Let's try some exercises";
  console.log(textInput);
  let el2 = await driver.$("//android.widget.LinearLayout[@content-desc=\"Continue conversation\"]/andr
  await el2.click();
  await driver.pause(5000);
  let el3 = await driver.$("~Reply or say help...");
  await el3.setValue(textInput);
  let el4 = await driver.$("~Send");
  await el4.click();
  await driver.pause(10000);
  const elements1 = (await driver.$$('android.widget.TextView')).slice(-7);
  let bagOfTexts = null:
```

WRITE TEST RESULTS TO A FILE

```
Input: Let's get active 15
Expected output: Let's try some exercises
Actual output:
Similarity score 0
Input: I'm feeling so happy today!
Expected output: I want to hear about what makes you happy
Actual output: I understand. Becoming our own best friend can make us find that inner peace and aligment.
Similarity score 0.23809523809523808
Input: How do you know if a burger is done or not
Expected output: Invalid topic I don't know how to respond
Actual output: Let's work on increasing our compassion towards ourselves.Not nowAnything else?That's it
Similarity score 0.1889763779527559
______
Input: What are different exercises that will help with my anxiety
Expected output: I notice you are not feeling well, how can I help you
Actual output: That must be distressing, Hhmm. I'm here for you.Can I help you with your feelings of anxi
Similarity score 0.32653061224489793
______
```

COMPARISON



Based on the **Sørensen–Dice coefficient**, this algorithm is most effective at detecting rearranged words or misspellings. It tends to be less effective with very short strings, unless perhaps you switch to comparing individual characters in common instead of bigrams.

It is case insensitive unless you specify otherwise. Does not ignore punctuation or spaces. In some cases, removing punctuation beforehand may improve accuracy.

PROBLEMS

- Javascript doesn't have machine learning libraries like
 Python
- However, we had problems using Python because Javascript offers better asynchronous methods and code writing

