

Project proposal

Team 2



Target users and the problem they are facing

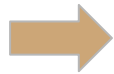
- Target group: people with anxiety disorder

- Anxiety - racing heart, knot in stomach, discomfort, inability to focus, racing thoughts
- Panic attacks - the abrupt onset of intense fear or discomfort that reaches a peak within minute



- Current treatment methods:

- therapy - weekly visits, learning coping strategies etc
 - limited to in office sessions
 - difficulty applying strategies during moments of anxiety or panic attack



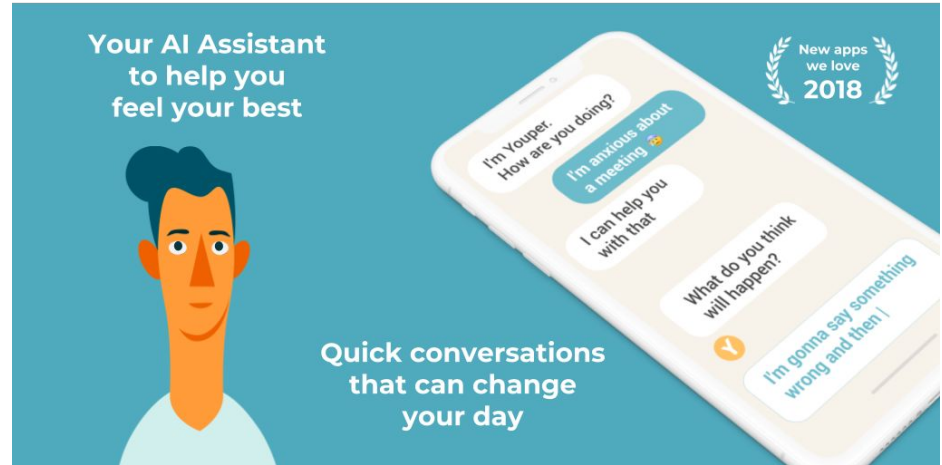
Long time until symptoms and overall situation improves

Existing solutions and their limitations

- There is an abundance of applications on Google Play / AppStore for anxiety reliefs.
- Most popular apps: Pacifica, Yuper, Dare, Moodpath..
- But none of them utilises sensor technology, instead they rely on the user to supply information for when they are feeling anxious.

Youper


- Aims to help users by letting them talk to a pedagogical chat bot.
- Mostly positive reviews.



But it has some issues..

Youper has no real intelligence and thus gives stupid general responses .

Turns depressed people into angry people.

**A Google user**



★★★★★ 23/02/2019

This app did not help me at first I was depressed. now im just frustrated. i rate this with an F smh

Was this review helpful?

Yes

No

**marti7587 - Minecraft**

★★★★★ 05/03/2019

doesn't help at ALL. it sayd something random everytime. hate it.

Was this review helpful?

Yes

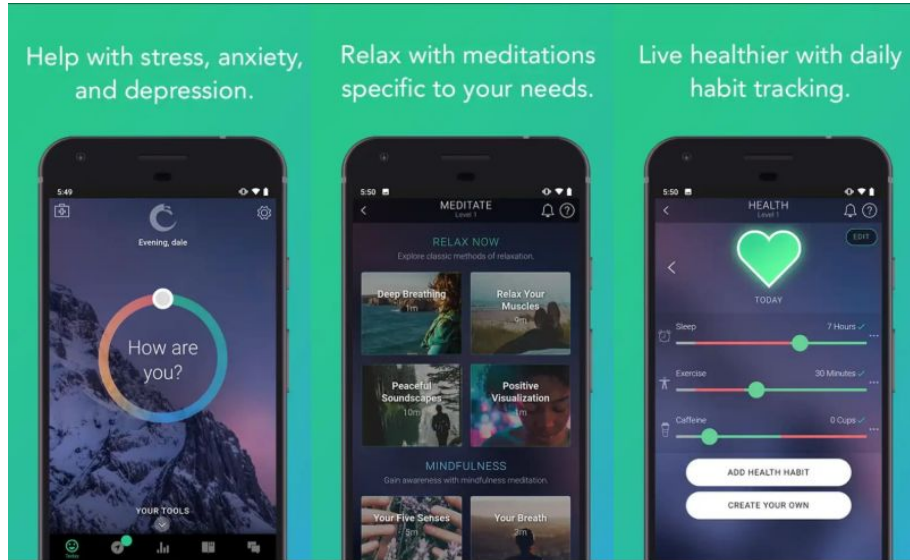
No

Youper, Inc12/03/2019

Sorry Youper wasn't the right fit for you and thank you for your genuine feedback. We're are working hard to continue improving it. Please share more about your expectations and suggestions for evolving the product at <http://support.youper.ai>

Pacifica

- #1 on the Play Store among anxiety relieving apps.
- Gives users guides for relaxing and meditation.
- Relies on users providing their own mood data.



Issues

- Users are required to remember to frequently manually input their mood and their health habits / diet / sleep cycle.
 - Relies strongly on intrinsic motivation
 - difficult to form such new habits
- Overwhelming amount of coping mechanisms
- No app employs an automated approach for mood detection

The key solution idea to tackle the problem

- Use heart rate to detect panic/anxiety attack
- Open app to help relax/distract
- Single coping mechanism based on severity of panic attack



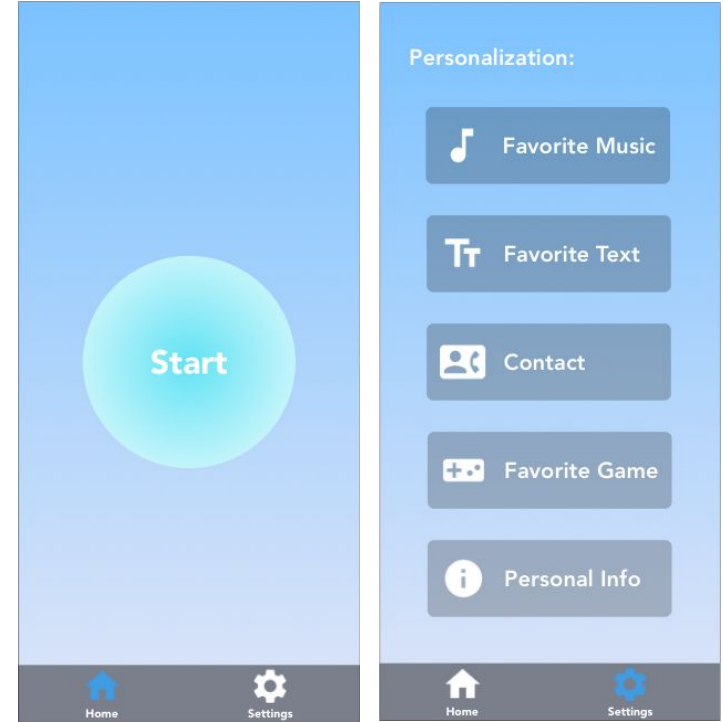
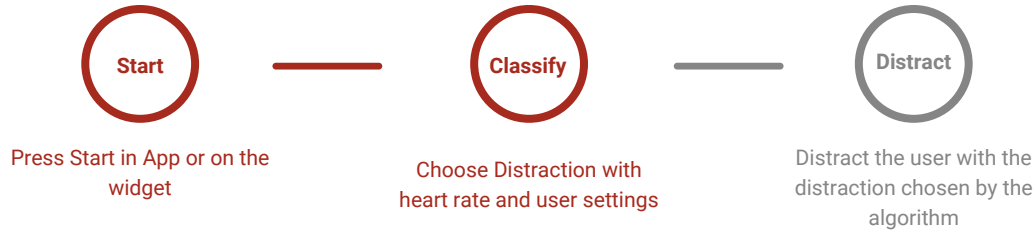
Usage scenario

- Ideally:
 - Identify panic attack from external sensor
 - Automatically open app when phone is unlocked
 - Provide coping mechanism
- In our case:
 - Manually open app
 - Measure heart rate
 - Choose coping mechanism

The proposed system overview and specific functions

Example Distractions:

- Music
- Games
- Call Contact
- Read your favorite Text
- Chat with Person nearby
- Guided meditation (specified for severity)



Expected technical challenges

- Recognizing panic attack based on real-time heart rate
 - differentiate between natural heart rate increase (eg running) vs panic attack
 - lack of dataset for algorithm development
- reading heart rate
 - use health kit (limited to iphone), flashlight measurement
- Categorizing severity based on heart rate
- Deciding which coping mechanism to choose for which heart rate



Overall project plan

- each week we assign people to specific tasks for the following week
- Week 4: Finish theoretical background research
- Week 5: Decide on specific app content, and algorithms used
- Week 6-9: Coding of initial overall app workflow
- Week 10: Milestone (Panic button, heart rate measurement, opening of templates based on heart rate severity, classification algorithm)
- Week 11 -15: Improve design, realize templates, improve classifier
- Week 16: Milestone

Final deliverable and success criteria

- Final deliverable: app (panic button, heart rate measure, opens app and provides coping mechanism (1 coping mechanism fully implemented, rest templates - if time implement more))
- Success criteria:
 - The app actually functions :)