
Prime Digital Academy Water Bottle

HEURISTIC ANALYSIS

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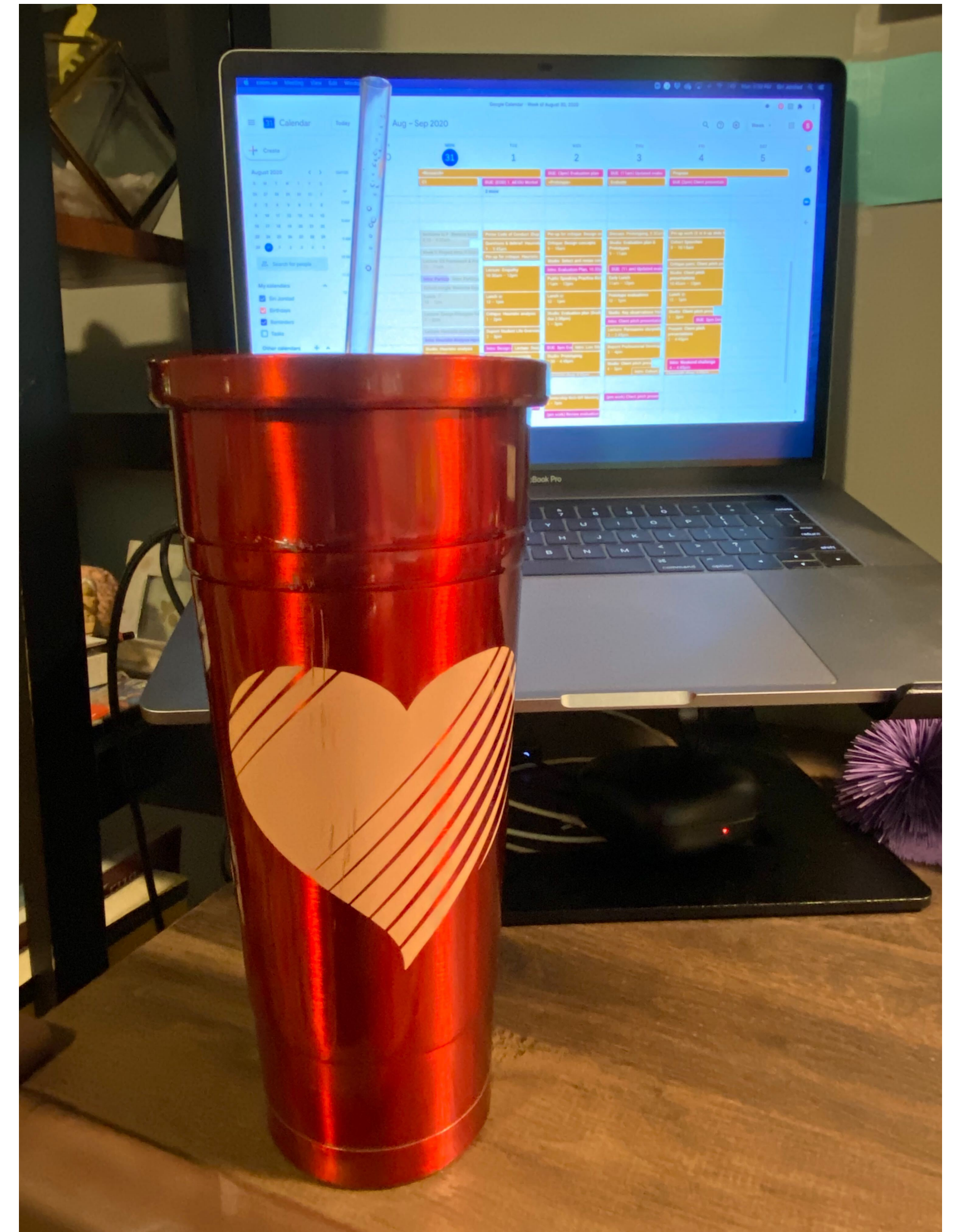
EXECUTIVE SUMMARY

Full-stack engineering students were given this water bottle as a welcome gift. Unfortunately, the staff has heard that some students have found it rather unusable and impersonal.

A heuristic analysis was conducted to help understand pain points and determine a better welcome gift.

The key pain points violated by this design were:

- 1. Design aesthetic**
- 2. High potential for spills**
- 3. Poor label for not dishwasher safe**



TASKS COMPLETED

Each of the following tasks were observed during the heuristic analysis

- **Removed lid and straw**
 - **Cleaned water bottle**
 - **Filled water bottle with water**
 - **Screwed lid back on and replaced straw**
 - **Drank using straw**
 - **Drank without cap & straw**
 - **Transported bottle via bag and vehicle**
 - **Held and handled water bottle**
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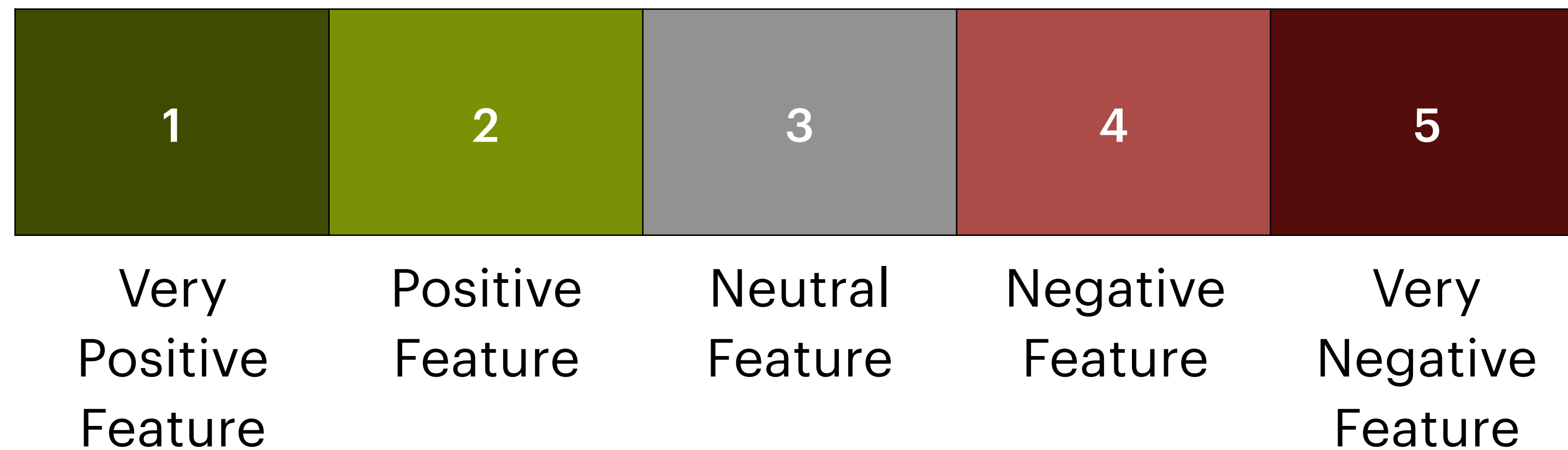
10 HEURISTICS OBSERVED

The following heuristics were considered:

- **Visibility of system status**
 - **Match between system and the real world**
 - **User control and freedom**
 - **Consistency and standards**
 - **Error prevention**
 - **Recognition rather than recall**
 - **Flexibility and efficiency of use**
 - **Aesthetic and minimalist design**
 - **Help users recognize, diagnose, and recover from errors**
 - **Help and documentation**
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VIOLATION RATING SCALE

A rating scale of 1 to 5 was created to help determine which observations are considered to be very negative features that should be fixed and where features are very positive and should consider to be kept.



OBSERVATIONS

The following observations were made while the water bottle tasks were being administered

| Rating | Observation |
|--------|-----------------------------------------------------------------|
| 1 | Bottle is easy to drink from with straw |
| 1 | Bottle is large, sturdy and durable |
| 2 | Bottle keeps water cold |
| 2 | Bottle does not sweat |
| 3 | Bottle has indentation added for extra grip, but smooth surface |
| 3 | Easy to disassemble for cleaning |
| 4 | Labeled "hand wash only" on bottom of bottle in small text |
| 5 | High spill potential with open hole and screw on top |
| 5 | Design aesthetics not inclusive for diverse group |

ISSUE #1 - DESIGN AESTHETICS

Prime Digital Academy's full-stack engineers are a diverse group of individuals with varying backgrounds, interests and aesthetic preferences.

This water bottle is bright red in color and features a light pink heart. The aesthetics of the welcome gift should feature more neutral or brand specific colors to accommodate various aesthetic preferences.

VIOLATED HEURISTICS

- **Match between system and the real world** - Doesn't speak the user's language
- **Aesthetic and Minimalist Design** - Aesthetic displeasing to some, not inclusive of multiple personalities



ISSUE #2 - HIGH POTENTIAL FOR SPILLS

Prime Digital Academy's full-stack engineers are currently spending most of their time at home at their desks surrounded by a laptop and additional equipment that can not get wet.

This water bottle has a hole on top for the straw that can not be sealed and a cap that is difficult to align when screwing. Both issues can lead to spills which could be catastrophic in the user's environment.

VIOLATED HEURISTICS

- **Visibility of System Status** - no feedback when cap is locked in correctly
- **Error Prevention** - spill error can't be prevented due to hole



ISSUE #3 - POOR LABELING: NOT DISHWASHER SAFE

Prime Digital Academy's full-stack engineers are very busy individuals with 60-80 hours a week going towards their studies. They do not have free time to hand wash their water bottle.

This water bottle is comprised of 3 separate pieces which makes cleaning a more tedious task and the only way to know it is not dishwasher safe is the small text on the bottom of the bottle reading "hand wash only".

VIOLATED HEURISTICS

- **User Control & Freedom** - Hand wash only isn't marked in prominent location, no ability to undo
- **Error Prevention** - a single wash cycle could ruin bottle



RAW FINDINGS

View

Negative - Opaque - can't see water level volume
Negative - Bright red with heart - not designed for everyone but easy to locate
Neutral - Has cap and straw
Neutral - Looks solid and metallic
Neutral - Smooth surface throughout
Neutral - Shows indent for grip
Negative - Noted on bottom in small type "hand wash only"
Positive/Neutral - Inside bottle shows 25 oz.
Neutral - Stainless steel is marked
Fairly large

Fill/Empty

Positive - Cap easy to remove
Neutral - Fits under refrigerator spout
Neutral - Fits under faucet in sink
Neutral - Shows line where cap locks in
Negative - Cap tough to align/screw in perfectly

Clean

Neutral - 3 separate components (cup, cap & straw)
Negative - Not dishwasher safe
Negative - Unsure how to separately clean straw

Drink

Positive - Easy to drink through straw
Negative - Without cap/straw wide open mouth - could lead to spills
Negative - Heavy & opaque = unsure of water volume
Positive - Keeps water cold

Transport

Positive - Fits in purse, backpack pouch or car cup holder
Negative - Hole in top so spills on turn over
Negative - Paint chips/scratches against rough surfaces

Hold/Handling

Neutral - Has indentation for added grip
Neutral - Smooth surface
Positive - Fairly large
Positive - Bottle doesn't sweat
