TEAM NAME: TECH TITANS

PROBLEM STATEMENT: MANY MOBILE APPS LACK ACCESSIBILITY FEATURES, CREATING BARRIERS FOR VISUALLY IMPAIRED USERS AND POTENTIALLY VIOLATING ACCESSIBILITY REGULATIONS. THIS EXCLUSION HINDERS DIGITAL PARTICIPATION AND MISSES MARKET OPPORTUNITIES.

TEAM LEAD NAME:JANCY.A

SUMMARY:

AN ONLINE SHOPPING PLATFORM FOR THE VISUALLY IMPAIRED PRIORITIZES ACCESSIBILITY AND USABILITY. KEY CONSIDERATIONS INCLUDE SCREEN READER COMPATIBILITY, TEXT-TO-SPEECH SUPPORT, HIGH CONTRAST AND LARGE TEXT, SIMPLE NAVIGATION, KEYBOARD ACCESSIBILITY, DESCRIPTIVE LINKS, ACCESSIBLE FORMS, VOICE COMMANDS, USER FEEDBACK, AND USABILITY TESTING WITH VISUALLY IMPAIRED USERS. NAVIGATION CAN BE DIVIDED INTO LANDMARK-BASED AND BREADCRUMBS NAVIGATION, WITH EACH SECTION HAVING A UNIQUE SOUND. PRODUCT INFORMATION SHOULD BE DESCRIPTIVE, WITH PRE-RECORDED AUDIO DESCRIPTIONS AVAILABLE FOR USERS TO ACCESS.

THE CHECKOUT PROCESS SHOULD BE GUIDED BY STEP-BY-STEP AUDIO INSTRUCTIONS AND FORM VALIDATION WITH AUDIO FEEDBACK. ADDITIONAL FEATURES INCLUDE KEYBOARD ACCESSIBILITY, FOCUS INDICATORS, AND CUSTOMIZATION OPTIONS. BY INCORPORATING THESE PRINCIPLES, AN ONLINE SHOPPING PLATFORM CAN BE DESIGNED FOR VISUALLY IMPAIRED USERS, EVEN WITHOUT A MOBILE APPLICATION. THIS ENSURES A USER-FRIENDLY AND ACCESSIBLE SHOPPING EXPERIENCE FOR ALL USERS.

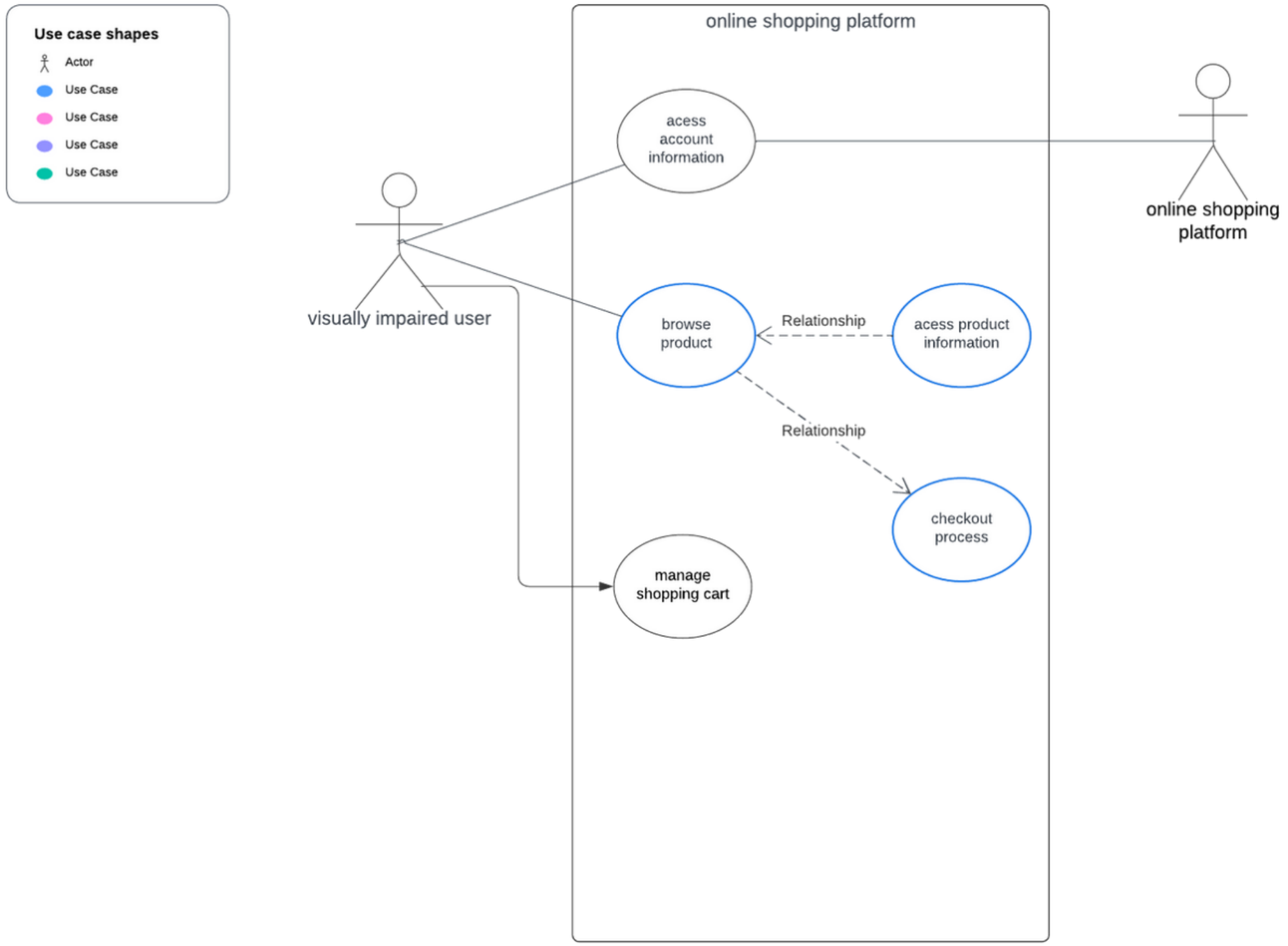
OPPORTUNITIES:

DIFFERENCE: THOUGH THE MODEL IS BUILT IN A TEXT TO SPEECH DESIGN ,THE DIFFERENCE HERE IS EACH SECTION OF NAVIGATION HAS DIFFERENT VOICES FOR EASY IDENTIFICATION.
SOLVING:INTEGRATING THE EXISTING APPLICATION IS THE SOLUTION .
USP: INTUITIVE VOICE COMMANDS FOR SEAMLESS NAVIGATION AND INTERACTION.
HIGH CONTRAST, LARGE FONT OPTIONS FOR ENHANCED READABILITY AND ACCESSIBILITY.

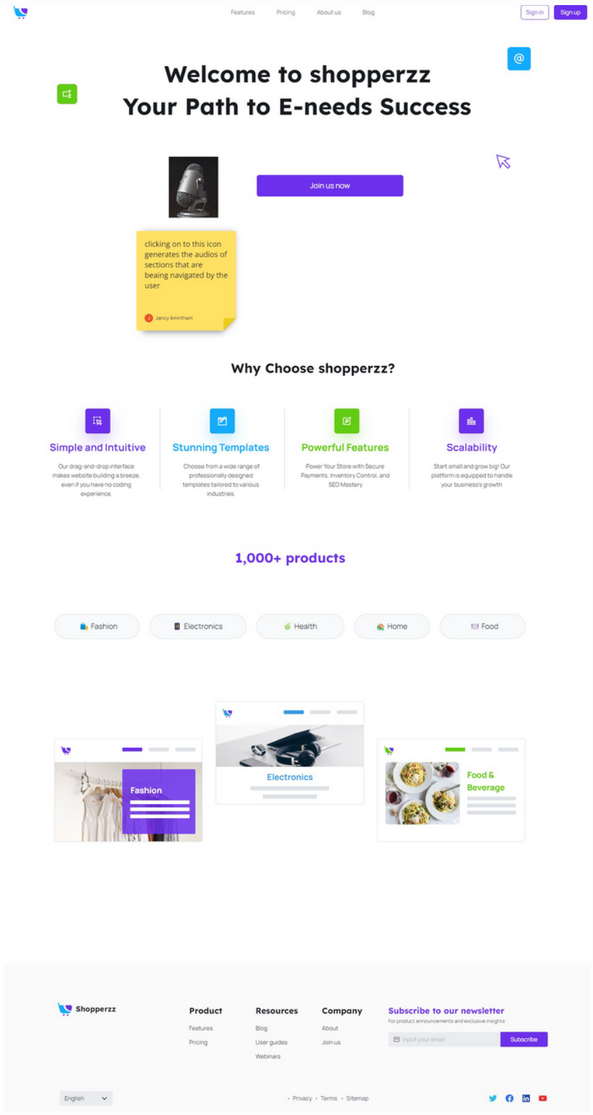
FEATURES:

- **KEYBOARD NAVIGATION**: MOUSE-LESS NAVIGATION.
- **LANDMARK-BASED NAVIGATION**: UNIQUE SOUNDS.
- **BREADCRUMBS NAVIGATION** :INTIMATING THE CURRENT AND PREVIOUS SECTION.
- **ALTERNATE TEXT**: TEXT DESCRIPTIONS FOR NON-TEXTUAL CONTENTS.
- **KEYBOARD SHORTCUTS**: EFFICIENT NAVIGATION.
- **HIGH CONTRAST MODE**: EASIER TO READ

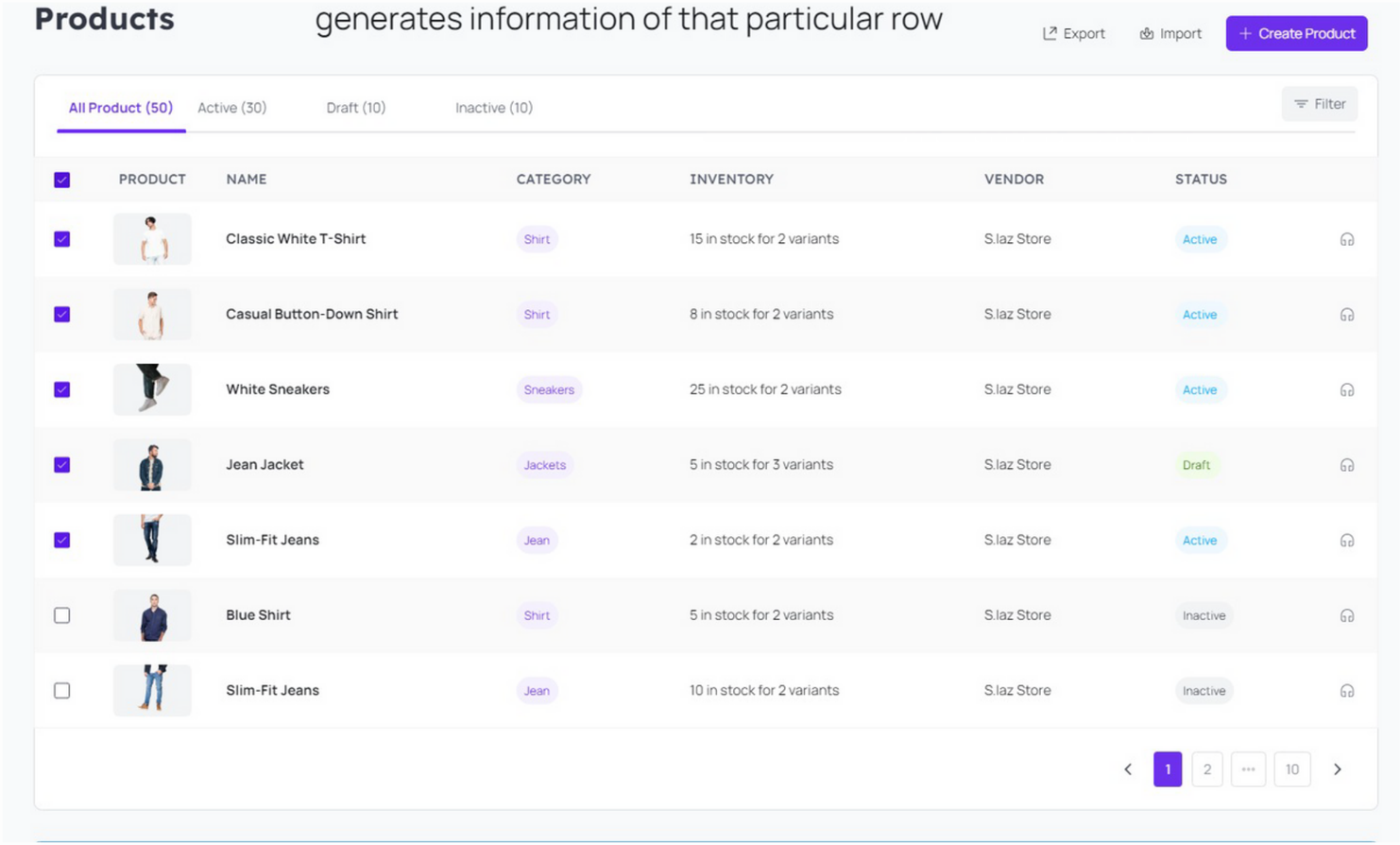
USE-CASE DIAGRAM:



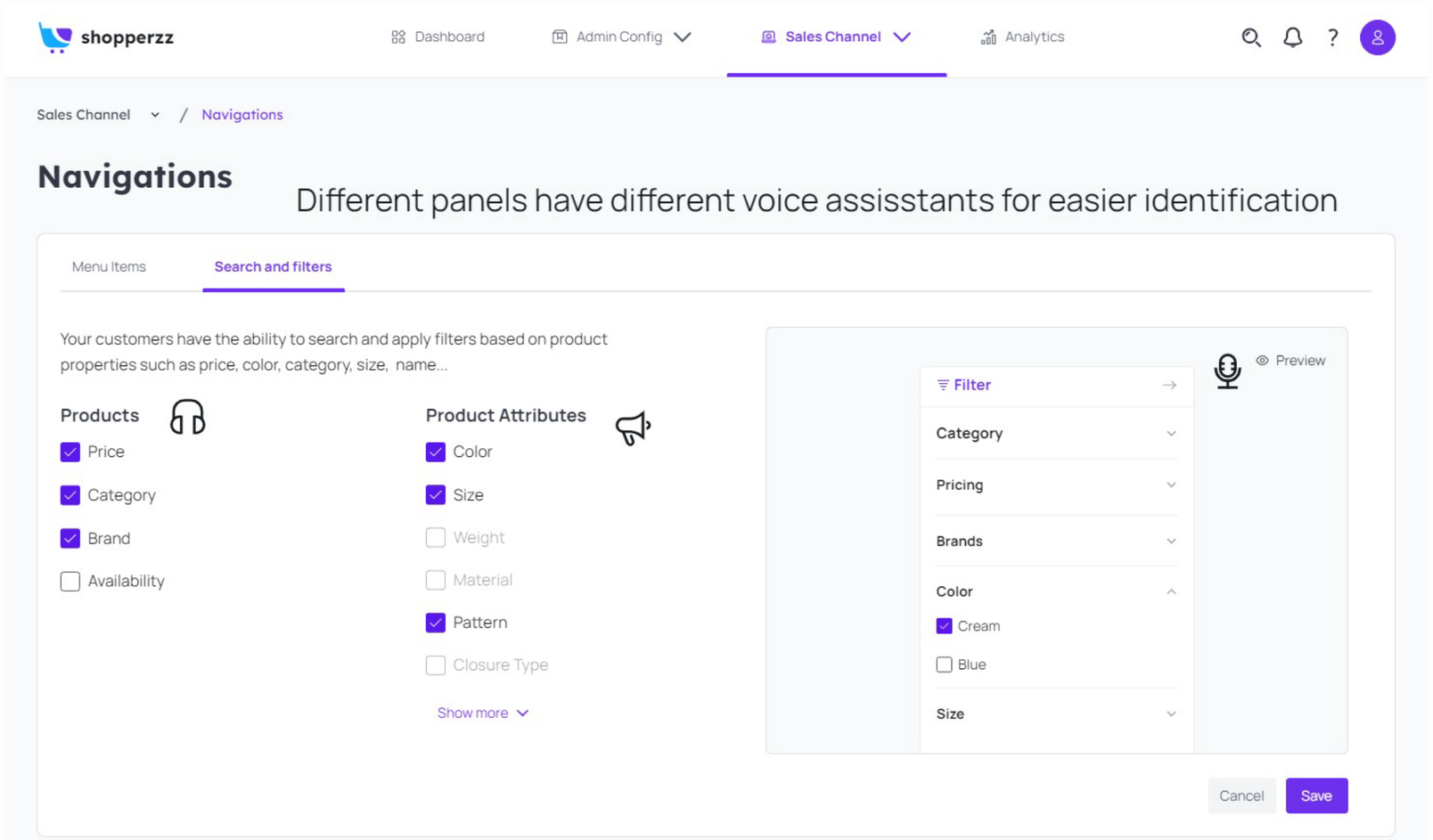
MOCK DIAGRAM:



VOICE ASSISTANT:



UNIQUE VOICES FOR DIFFERENT SECTIONS:



TECHNOLOGIES TO BE USED:

1. SCREEN READER COMPATIBILITY.
2. TEXT-TO-SPEECH (TTS).
3. HIGH CONTRAST MODES.
4. VOICE COMMANDS.
5. GESTURE-BASED NAVIGATION.
6. ADJUSTABLE TEXT SIZE AND FONT.
7. ACCESSIBLE USER INTERFACE ELEMENTS.
8. ALTERNATIVE TEXT FOR IMAGES.
9. HAPTIC FEEDBACK.
10. ACCESSIBILITY SETTINGS.

IMPLEMENTATION COST:

SIMPLE VOICE ASSISTANT: BRINGS THE COST OF INTEGRATING A VOICE ASSISTANT DOWN TO A RANGE OF $5,000 TO $15,000.

OUR MODEL'S ASSISTANTS:

- TEXT-TO-SPEECH FUNCTIONALITY AND BASIC NAVIGATION MIGHT COST $20,000 TO $50,00.
- COMPLEX USER INTERFACES WILL PUSH THE COST TOWARDS **$50,000 TO $100,000** OR MORE.

BUT, THE REAL COST IS TRULY BASED ON THE USAGE OF ASSISTANTS AND WISE USE OF RESOURCES.

INNOVATION & IMPACT:

ADVANTAGES:

- REDUCED BARRIERS.
- BUILT-IN ACCESSIBILITY FEATURES.
- CUSTOMIZATION.
- GREATER INDEPENDENCE.

POTENTIAL IMPACTS:

- INCREASED ACCESSIBILITY.
- WIDER RANGE OF TOOLS.
- OFFLINE FUNCTIONALITY.
- LONG-TERM SUPPORT.
- EASILY BUILT WITH HTML,JAVASCRIPT,CSS.

PERSONAL INFORMATION:

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PAST HACKATHON EXPERIENCE:SOLAR POWER PLATFORM HACKATHON IN COORDINATION WITH SETON HALL UNIVERSITY,MICROSOFT,SOLARLANDSCAPE(OCT 21 TO OCT 23,2022).

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THANK YOU

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