



Northeastern's Product Hackathon

PROTOTHON 6.0

Problem Statement: Enhancing Digital Accessibility

As a Product Manager at your <company>, you are tasked with spearheading an initiative to make digital products and services more accessible to underserved user groups. The tech industry has made significant strides in digital innovation, yet many products still present barriers for users with diverse accessibility needs. Your challenge is to bridge this gap through innovative solutions.

You will work with your product team to develop a proposal that addresses specific accessibility challenges faced by <user group>. This could involve enhancing an existing product feature or creating an entirely new solution. Your proposal should demonstrate how your solution can transform the user experience for your target audience while maintaining the product's core value proposition.

Your success will be measured by:

1. The clarity and impact of your solution in addressing specific accessibility barriers
2. The seamless integration within the existing product ecosystem
3. The potential reach and value created for your chosen user group
4. Your consideration of privacy, security, and ethical implications

Ready to start ideating? On the next pages, you'll find:

- *A diverse list of companies across industries*
- *Detailed user groups to focus your solution on*
- *An example solution to inspire your thinking*

1. Select a Company:

Choose any company that serves the US market. Below is a suggested list of companies across different industries to help spark ideas, but you are not limited to these options. Think creatively about how AI could improve accessibility within the context of your chosen company's offerings.

E-commerce & Retail	Amazon
	Shopify
	Home Depot
Technology & Social Media	Google
	Microsoft
	Apple
	Meta
	Snapchat
	Instagram
Entertainment & Media	Disney
	Netflix
	Spotify
Transportation & Travel	Tesla
	Bluebikes
	Airbnb
Financial Services	Robinhood
	Venmo
	Zelle
Education & Learning	Coursera
	Canvas
Health & Wellness	Headspace
	Calm
	Medisafe
Home & Lifestyle	SharkNinja
	Ring
	Zillow
Events & Experiences	Eventbrite

2. Choose a User Group with Accessibility Needs:

Your solution should focus on one of these specific user groups:

- **Visual Accessibility Needs:** Users with partial or complete loss of vision, including color blindness and low vision.
- **Auditory Accessibility Needs:** Users with varying degrees of hearing loss, from partial to complete.
- **Physical Accessibility Needs:** Users with limited mobility, motor control challenges, or physical disabilities that affect their interaction with devices and interfaces.
- **Cognitive Accessibility Needs:**
 - Neurodivergent individuals (including those with autism, ADHD, dyslexia)
 - Users who may need simplified interfaces or alternative ways of processing information
 - Users with learning differences
- **Age-Related Accessibility Needs:** Older adults who may experience a combination of visual, auditory, physical, or cognitive challenges that affect their ability to interact with digital products.
- **Speech and Communication Needs:** Users with speech impairments or those who require alternative means of communication.

An example of this Problem Statement would be:

Visual Accessibility on Instagram: Instagram's AI-powered feature enhances the platform's accessibility for visually impaired users. Through image recognition and natural language processing, the solution provides a comprehensive, contextual understanding of posts by analyzing multiple data points: image/video content, captions, attached music, tags, locations, and hashtags. The AI combines these elements to create rich, narrative descriptions that convey not just what's in the image, but the full context and mood of the post. This holistic approach makes visual storytelling truly inclusive for all users.

Note: *This example showcases one possible approach using AI technology. Your solution can leverage any technology or method that effectively addresses the accessibility challenge for your chosen user group.*