



Accessibility For Digital Contents & Services

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Digital Accessibility to improve User Experience

- ❖ Nearly 20% (every 1 in 5) people in the world have some sort of permanent or temporary disability.
- ❖ 71% of disabled users don't use website or application simply because digital content is not accessible.
- ❖ Last year, more than 2000 websites accessibility lawsuits were filed by plaintiffs because they were not ADA (American Disability Act) complaint.
- ❖ Section 508 of the Rehabilitation Act of 1973 (29 U.S.C § 794 d) & American with disability act of 1990 (ADA)



Research Data:

Disable Group	Common Problems with Digital Contents
Color Blind	<ul style="list-style-type: none">• Only color is used as a unique marker to emphasize text on a Web site.• Text that inadequately contrasts with background color or patterns.
Deaf	<ul style="list-style-type: none">• Lack of captions or transcripts of audio on the Web, including webcasts.• Lack of content-related images in pages full of text.
Low Vision	<ul style="list-style-type: none">• Web pages with absolute font sizes that do not change.• Difficult to navigate when enlarged, due to loss of surrounding context.• Web pages, or images on Web pages, that have poor contrast.• Text presented as images, which prevents wrapping to the next.
Motor Disabilities	<ul style="list-style-type: none">• Time-limited response options on Web pages.• Tools that do not support keyboard alternatives for mouse.• Browsers and authoring tools that lack keyboard support for all commands.
Blind	<ul style="list-style-type: none">• Images that do not have alternative text• Complex images (e.g., graphs or charts) that are not adequately described.• tables that do not make sense when read serially (in a cell-by-cell or "linearized" mode)• Frames that do not have "NOFRAME" alternatives, or that do not have meaningful names• Forms that cannot be tabbed through in a logical sequence or that are poorly labelled.
Seizure	<ul style="list-style-type: none">• Use of visual or audio frequencies that might trigger seizure.

Persona:



Name: Nic

Profession: Project Manager

Goal: Handle project successfully within deadline and Funding.

Needs: Needs to make product accessible to avoid lawsuits.

Frustration: Difficult to find resources to learn accessibility for project managers.



Name: Doug

Profession: Software Engineer.

Goal: Include accessibility in each phase of SDLC.

Needs: Build friendly product for assistive technology.

Frustration: It is challenging to include code for accessibility while developing product. Need to improve skillset to address this issue.



Name: Ribkha

Profession: Accessibility Test Engineer.

Goal: Testing product using standard accessibility testing tool.

Needs: Need to report test result using standard format.

Frustration: Difficult to find resources to learn testing tools and how to report in standard format.

Affinity Mapping

Policies & Regulations

Designers/Architect

Implement accessible Design Principles & Practices.

Universal Design Approach for accessibility.

Inform Laws & Policies (section 508 1973& ADA 1990)

Developing Organizational Policies.

Principles and Standard for accessibility.

Developers

Developers module guide to maintain standard.

Overview of HTML5 accessibility

WAI-ARIA best practices.

Project Managers

Evaluate digital accessibility in organization.

Planning & Managing accessibility in various projects.

Identify available resources and build team appropriately.

Testers

Identifying test tools.

Following standard reporting tools.

Training for testers.

Community

Some way to connect with community for contribution.

Option to Post, respond or view questions from other community members.

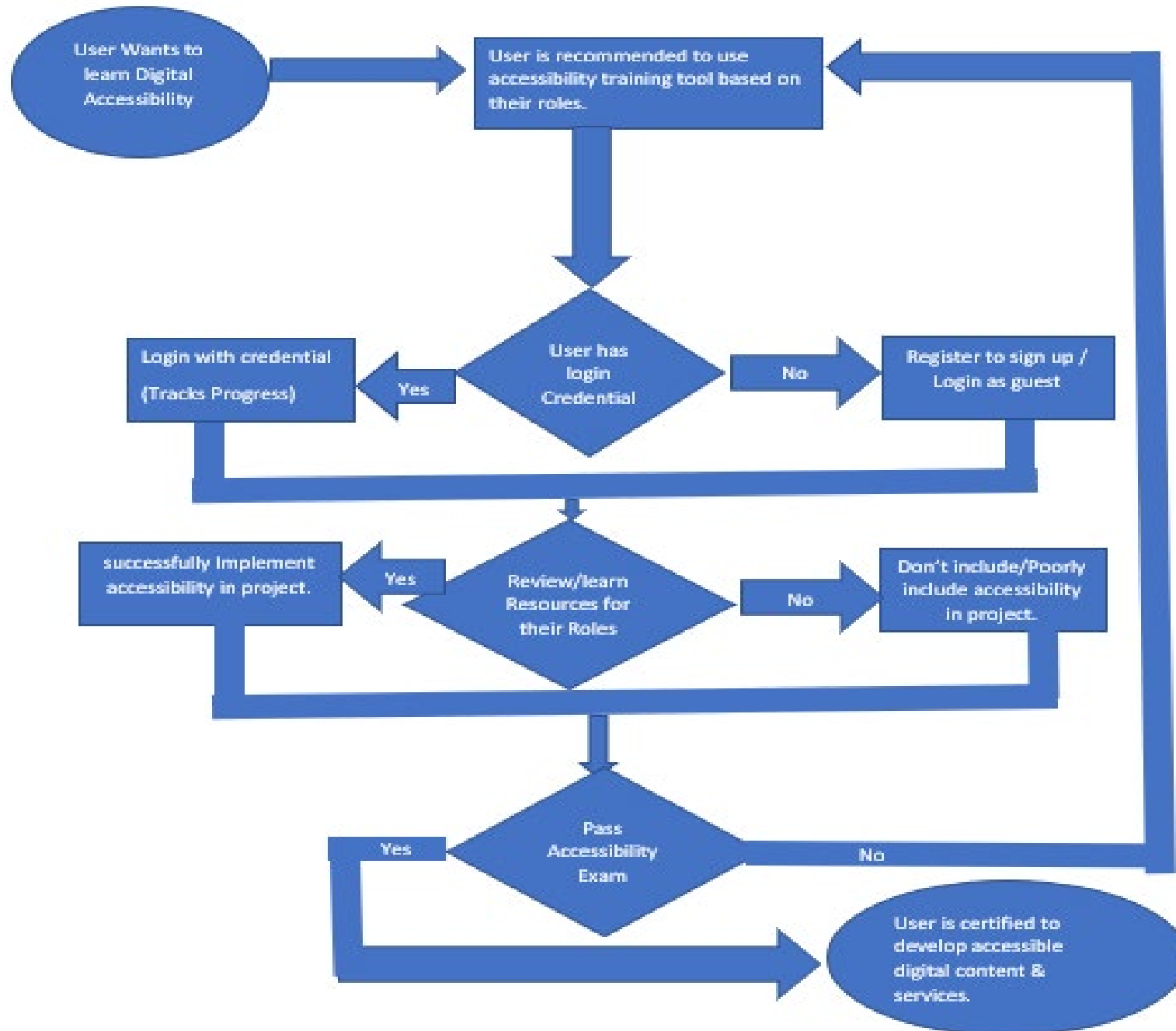


Service Experience

- ❖ Improve experience of disabled individuals while accessing digital information or services.
- ❖ Improve skillset of team members who are developing, enhancing or maintaining digital information and services.



Flow Chart



Sketch

Log in Page

Username

Password

Log In

[Sign Up](#)

[Continue as Guest](#)

Registration Page

First Name

Last Name

Email

Phone

Username

Password

Register

[Contact Us](#)

[News & Blog](#)

[Survey](#)

Resources Based on Roles

Laws & Regulations

XX

Project Managers

XX

Testers

XX

Developers

XX

Discussion/Forum

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[Survey](#)

Discussion/Forum

Laws & Regulations

Project Managers

Testers

Developers

Discussion/Forum

View

Ask

Answer

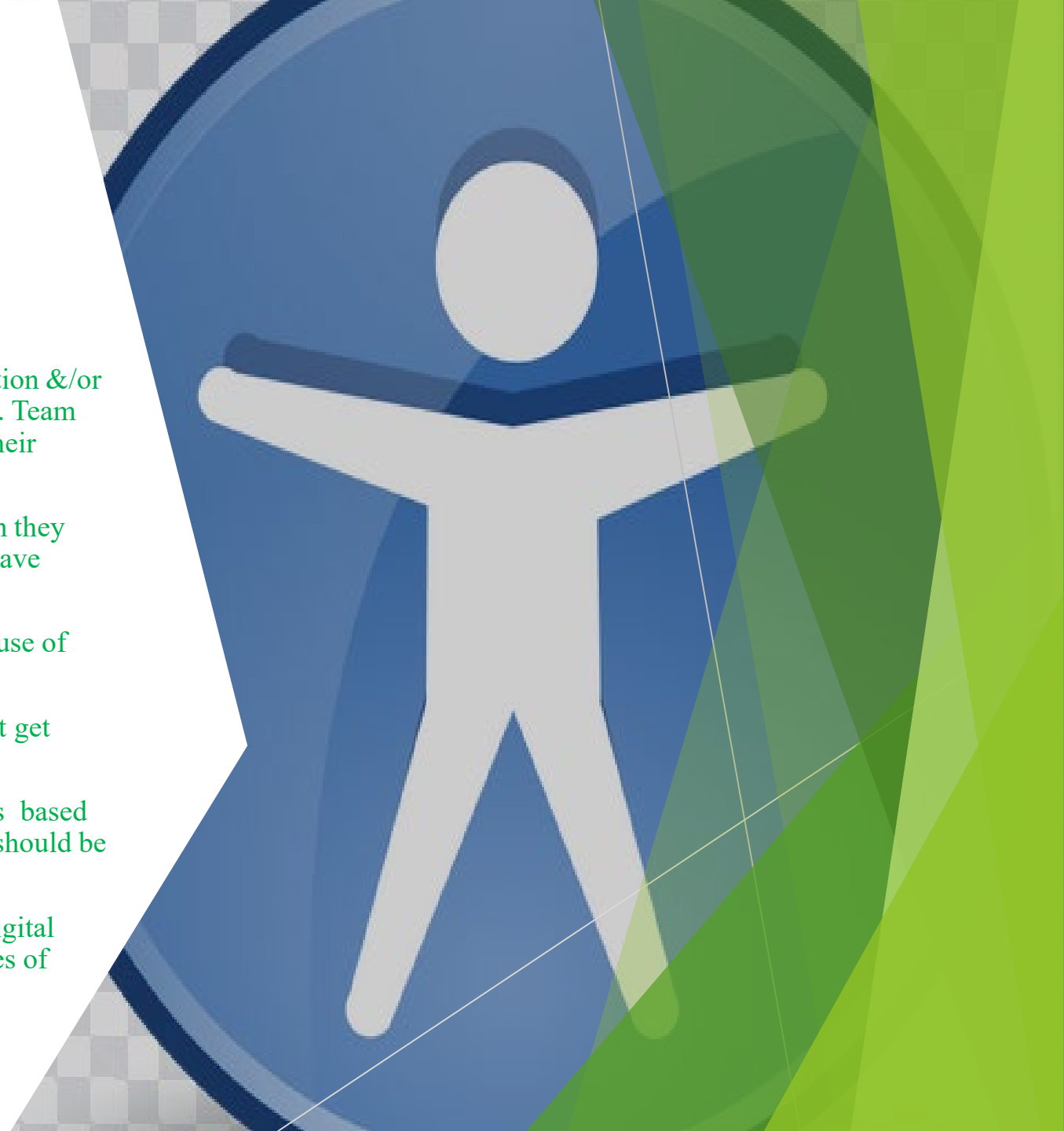
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Story Arc

- ▶ **Introduction:** Digital accessibility is important to share information &/or services for all including disable users to reach out to more users. Team members should have knowledge to implement accessibility in their project.
- ▶ **Incident:** Disable individuals have issue with getting information they need because of lack of accessibility. Team members might not have enough technical skillset about implementing accessibility.
- ▶ **Raising Action:** There are some instances of lawsuit action because of accessibility laws.
- ▶ **Climax:** Accessibility is the law not feature. Team members must get training based on their role to create accessible project.
- ▶ **Resolution:** This tool will provide training for our team members based on their roles and responsibilities. If possible, all disable groups should be addressed.
- ▶ **Conclusion:** We must consider accessibility while developing digital content or services. Accessibility must be considered every phases of SDLC.



Wireframe & Quick Demo

- ❖ Please check [Wireframe & Design in Figma](#)
- ❖ Get copy of project [Class Project in GitHub](#)
- ❖ Quick demo by running tool in browser (Source code is available in GitHub above)

What's Next ?

- ❖ Spread knowledge/Marketing
- ❖ Build community & Enhance tool
- ❖ Develop Certification Exam.

