## Market Research and Business Viability

1. Identify the target customers and their demographic.

It's critical to comprehend the competitive environment and how our product differentiates itself when it comes to a product made for people considering the more important subject which is visual impairments. When developing a product to help people who are visually impaired, it is important to know who your target market is and what makes them react. These clients could consist of the following factors as follows:

Age group: Let us consider the fact that, there will be age distribution of the visual impairment community. Different age groups could require different things. For example, younger people might need help with their schooling or educational purpose. Blind people can get the access to the graph and the graph will generate the summary based on the information which is present on the graph, and hence it will help the visual impairment to focus on their studies or it might help in different sectors of their job. Focusing the age from 8 and above can be able to use the visual impairment graph reader.

Occupational and Interests: Here, we can say about targeting the users specifically, by examining the particular occupations and pursuits of the respective intended audience. For example, a scientist or engineer may require support in understanding complex data visualizations, but a student may require support reading textbooks.

Technology Competency: This project supports a range of ability levels.

1. Describe the competing products and how does yours differ from that offered by competitors? Highlight the novel features of your product and the benefits it offers.

There are no competing products that is going to differ from that by the competitors.

**3.1:**

* Discuss possible alternative software development processes that can be applied for your project. agile/waterfall
* Select an appropriate software development process for your project. -waterfall
* Provide sufficient justifications why the selected software development process is the most suitable for your specific project. -waterfall,benefits
* Describe how you are intending to apply the selected software development process to your project. –

Following an analysis of numerous software development techniques, we have found that waterfall model or process is the applicable for our project that we have been working on. Essentially, the waterfall paradigm is document-driven. We have applied this waterfall model in our project as because it is useful in the development of a visual impairment graph reader program, especially given the nature of such applications and the needs of visually impaired users. The following are some things to think about in relation to the significance of the Waterfall Model in this situation:

Clarity and accuracy in Requirements: When developing apps for users with visual impairments, it is critical that requirements be both precise and clear. The Waterfall Model guarantees that the unique requirements and expectations of visually impaired users are well-documented since it places a strong emphasis on comprehensive requirement collection early in the project.

Accessibility Compliance: When building applications for people with visual impairments, accessibility is a vital issue. The Waterfall Model enables detailed design and planning phases that can address accessibility compliance from the beginning, guaranteeing that the application is built with accessibility in mind.

Quality Assurance: A vital feature of the Waterfall Model, rigorous testing is especially important for apps that use graph readers for people with visual impairments. These apps need to be extensively evaluated to make sure that users with visual impairments can understand and communicate graphical information correctly, and that there are no serious mistakes that could make using them more difficult.

User contribution: Although the Waterfall Model is renowned for its consecutive stages, user input is not excluded by it. User testing and feedback gathering can be included in the testing phase and, in certain situations, even in the design process. This ensures that the program is fulfilling the unique requirements of users who are blind or visually impaired.

Legal and Ethical Considerations: Compliance with legal and ethical accessibility norms is critical for apps that serve people with visual impairments. The documentation-heavy approach of the Waterfall Model can help guarantee that compliance is adequately addressed and well-documented.

Long-Term Maintenance: Visual impairment graph reader programs frequently necessitate regular maintenance and updates. The documentation and systematic approach of the Waterfall Model make it simpler for maintenance teams to understand the architecture of the program and make necessary adjustments without jeopardizing accessibility.

In case of visual impairment graph reader project, if we were intending to use the waterfall model.

Project Initiation:

We have determined the necessity for a graph-reading application for those who are visually impaired.

Acquiring Requirements:

To obtain specific requirements, work with organizations and professionals in the field of visual impairment.

Coding (implementation):

Based on the design, we have created the application, making sure it shows the data to people with visual impairments in an effective manner and can read graphs with accuracy.

In this case, the Waterfall Model would offer an organized and thoroughly documented method for creating a visual impairment graph reader, guaranteeing that the program is precise, dependable, and consistent with accessibility guidelines right from the start. Nevertheless, in order to satisfy the changing requirements of the visually impaired community, it's critical to remain receptive to user feedback and incremental changes throughout the process.