This is the Table of contents form our skeleton document.  
This document gives a sample to refine 2 parts of our Chapter 4 (4.2 to 4.3).  
Please consider this document as a basic intro to write a draft for these two parts.   
A draft with following information will help the team:  
1. Necessary info about methodology of programming and design  
2. Necessary info about tools be chosen  
3. Any screenshots or records that might be useful (can be independent package)  
A paper with text on it

Description automatically generated  
  
This Part   
\*\*Example: Football Data Collection App\*\*

Let's explore how the methodology and program architecture can be combined for developing a Football Data Collection App.

\*\*1. Choosing the Methodology:\*\*

For the development of the Football Data Collection App, we consider the scope and requirements. Since data collection apps often require frequent updates and may involve user feedback for improvements, we opt for an Agile development methodology. Agile will allow us to be responsive to changing data requirements and continuously improve the app based on user needs.

\*\*2. Methodology Guides Architecture Design:\*\*

With Agile methodology in mind, we start by understanding the data collection requirements for the app. It could involve recording player statistics, match results, goals, assists, and other relevant football data. Based on this analysis, we design the program architecture for the app. A suitable architecture could be a Client-Server architecture where the app's clients (users) can submit data to a central server. The server processes and stores the collected data securely.

\*\*3. Methodology Impacts Development Process:\*\*

The Agile development process involves iterative sprints, where we develop specific features in each sprint. In this context, we may prioritize features like player statistics collection and match results recording in early sprints, allowing us to release a functional version of the app sooner. The iterative nature of Agile also permits us to gather feedback from users during each sprint and make necessary adjustments to the data collection process based on their inputs.

\*\*4. Iterative Improvements and Continuous Optimization:\*\*

Throughout the development of the Football Data Collection App, we continuously gather user feedback. Based on this feedback and any emerging data trends, we may identify the need to enhance the app's architecture. For instance, if the user base grows significantly, we might need to consider scaling the server infrastructure or optimizing data processing to handle increased data volume effectively. Agile allows us to make these improvements iteratively, ensuring that the app remains responsive and up-to-date.

\*\*Summary:\*\*

By adopting the Agile methodology, we can quickly develop and release a functional version of the Football Data Collection App. With a Client-Server architecture, we ensure that data collected by users is securely managed and stored. The iterative nature of Agile enables us to prioritize essential data collection features, gather user feedback, and make continuous improvements based on the user's needs and data trends. Throughout the development process, we can optimize and refine the app's architecture to handle any future scalability requirements effectively.