Parent Chore System Vision Statement

The Parent Chore System is a revolutionary application that is designed to encourage household responsibilities in a fun and entertaining way. Personalised for parents and children it introduces a competitive element through weekly competitions, encouraging siblings and friends to actively participate. The application also allows parents to track children's spending and builds financial responsibility for them.

The primary users of the Parent Chore System are parents and their children. Parents have the opportunity to input and assign chores to their children, while the children use the platform to complete the tasks assigned to them. The Parent Chore System will bring benefits to both parents and children by providing an efficient way to manage household tasks. It also gives children a sense of responsibility which can grow on as they get older and learn about money.

There are four main key features of the Parent Chore System which are the chore assignments, proof of completion, competitions and financial tracking. For chore assignment this is where the parents will be able to add and assign the chores to their children, specifying the details such as due date and payment. Proof of completion allows the children to check a box stating that they completed the task, so that parents can see that the chore is done. The system will generate friendly competitions by allowing siblings and friends who also have the app to challenge each other. This feature works by enabling competition between 2 children based on the earliest time of chore completion. Essentially, both children will be assigned the same chore/s and depending on who check marks it first after completion, wins the competition resulting in a possible bonus payment.
The financial tracking of the application will allow parents to track their child's earnings through chore completion ensuring an educational component around financial responsibility.

The Parent Chore System will be considered successful when a Desktop app is created that allows different families to have full control over setting prices on chores, who completes them and when they should be completed by.

The system should keep track of how many chores each child has completed and the child will earn money and points for each chore. The application should also allow children to post proof on task completion by checking a box. If all these goals are satisfied the application will be very helpful for families all over the world.

Big User Stories

These user stories describe the main features of your software in very broad terms, for the entire project. You should create 3-4 big stories (categories of features) for the entire project (final release) and 5 to 6 user stories per iteration.

Big User Story 1: Chore Tracking and management:

As a parent, I want to be able to easily input and assign chores to my children through a user-friendly interface. The app should allow me to specify details like the completion dates and payments behind the chore completions. I also want to be able to use a centralised dashboard so that I can keep track of each child's list of completed chores such that it ensures easy and convenient management of such household responsibilities.

Big User Story 2: Proof of Completion and Validation

As a child, I want an easy way of sending proof of completing assigned chores through methods such as simple checkbox ticking. In addition, my parents should be able to verify and approve these completed chores and reward me for my work.

Big User Story 3: Friendly Competitions and Rewards

As a kid like me, having competitions with your brothers, sisters, or friends is super exciting! It's like having your own little Olympics at home. Here's how it goes: me and my sibling or friend can challenge each other by doing the same chores that our parents give us. It could be anything from cleaning our room to washing dishes. Then, we race to see who finishes first! And guess what? The best part is, if I win and finish my chore faster, my parents might give me an extra reward, like extra allowance. It's like a fun game that makes doing chores feel like an adventure!

Big User Story 4: Financial Tracking and Education:

As a parent, It is very important for our kids to be financially literate. We believe that kids aren't taught this enough at school. In this case, enabling a feature allowing both the parents and children to view the ‘balance’ on their (childrens’) accounts will provide a better learning opportunity to understand the value of hard earned money which is a useful skill for them to possess as they grow older.

Big User Story 5:

As a child, if there was a way for me to download a list of all the chores my parents wanted me to do! That would be so good because then I could have it on my tablet or phone, even if I'm not connected to the internet. I wouldn't have to keep opening the app all the time to see what I have to do next. I could just look at the list whenever and wherever I am in the house! It would be like having my chore instructions right in my pocket, ready to go whenever I need them. It would make doing chores way easier and faster too!

Iteration 1 detailed user stories: these are the user stories you plan to implement in the first iteration, in greater detail. You should create 5-6 user stories for the first iteration.

The user stories should be written on 3"x5" index cards. Each card should have a descriptive title, and greater detail below. For the big stories, the detail will be brief; for the user stories, the detail should be more precise and may include unanswered questions. Cards should also include a priority measurement (high, medium, or low) and a time estimate, in story points (ideal development days). Note that there are typically 3 weeks between each iteration. See the Syllabus for exact due dates.

Title: Chore Edit and Deletion

Detail: As a parent, I want the ability to edit or delete chore assignments in case of mistakes or changes in plans.

Questions: Should there be a log of edits/deletions? How will this feature affect ongoing competitions?

Priority: Medium

Time Estimate: 2 story points

Title: Registration and Login

Detail: As a parent, I want my each child's account to be separate such that they cannot see each others chores and balances.

Questions: Should parents have access to all information of their children? Should mothers and fathers register separately, or can they have a combined account? Should parents register their children, or can children register themselves?

Priority: High

Time Estimate: 3 story points

Title: Chore Sorting Options

Detail: As a parent, I want the ability to sort and filter the list of assigned chores based on various criteria (e.g., due date, child, completion status), enhancing usability.

Questions: What sorting options are most useful to parents? Should there be default sorting?

Priority: Low

Time Estimate: 2 story point

Title: Proof of Completion of Specified Chore

Detail: From the perspective of a child, I want to be able to seamlessly send/upload a photo or tick checkboxes as evidence that I finished a duty so my parents could confirm that. Parents should be able to view the submitted proof for each completed chore. This can be achieved through a dedicated section within the application and can have preview images of uploaded pictures. In cases, where a picture is not necessary, children can also go through a checkbox confirmation process on a clear and user-friendly interface which will guide them as well.

Questions: Should the system restrict the file upload capacity for storage reasons?

Should parents receive real-time notifications as to when the child submits a proof of completion?

Priority: Medium

Time Estimate: 3 Story Points

Title: Competition Algorithm Implementation Enhancement

Detail: As a child, I would like the competition feature to be sophisticated enough to reflect facts like chore type and the amount of time it took to complete the task so that the point system (between siblings if that's the case) can show the parents which sibling is performing better. The system can calculate competition points based on a weighted combination of the time and chore. This operation can be calculated with a specific formula. There can also be a breakdown available which will show each completed chose.

Questions: How should the system assign weights to different factors (for example chore difficulty or completion time)?

Should the exact calculation scheme be visible to each user on the application?

How should we make it so that the system is fair and reflects the children's efforts accurately?

Priority: Medium

Time Estimate: 2 Story Points

Title: Download Chores as Excel Sheet

Detail: We think that children should learn about financial literacy from a young age. That's why we want them to be able to see all their chores in a nice organized excel sheet. Excel is a very important tool in the professional world, especially in professions such as accounting. Letting children have experience with Excel sheets will help them get ahead both financially and in a technical/digital aspect. In addition, this also gives them something tangible to have, allowing them to be more drawn into using this app.

Questions: How would you implement a feature in Java to allow children to mark their chores as completed within the Excel sheet interface?

What strategies would you employ in Java to ensure the security and integrity of children's chore data stored within an Excel sheet?

Priority: Medium

Time Estimate: 3 Story Points

ITR2-Updated plan

- Plan should be up-to-date (if there is any change from ITR0 to ITR1 and ITR2, it should be explicit and justified)

Change recorded in ITR 1: A modification that we had to make was with detailed user story #6 which was regarding the payment/financial system. Our initial plan was to incorporate a secure cash deposit/withdrawal bank type of system for the parents. We, as a group, decided that this would be too much, a “feature over-load”, so then we just decided to incorporate an excel sheet/pdf generating system that acts like a Bank Statement for the Child/Parent.

Change recorded In ITR 2: We have made a change to the display to the user by implementing a database to present the recorded chores in association with earned cash to add an additional feature display to the child using the app.

- **NEW Detailed user stories for ITR2**
    - We added 3 new detailed user stories in this iteration:

Title: Database For Storing User Information

Detail: As a parent or guardian of children using the chore rewarding application, I need a secure and reliable database system to store user information, so that I can track their chore completion and reward them accordingly. The purpose of this user story is to ensure that the chore rewarding application has a robust backend infrastructure in place to securely store user information, including children's profiles, chore completion records, and reward history. This database will serve as the foundation for tracking and managing user data effectively, allowing parents or guardians to monitor their children's progress and incentivize them for completing chores.

Questions: 1) What type of database system should be used for storing user information? (e.g., relational database, NoSQL database)

2) How will user authentication and access control be implemented to ensure the security of user data?

Priority: High

Time Estimate: 4 Story Points

Title: Restricted View of Competition Standings for Parental Control

Detail: As a parent, I want each of my children to view only the competition standings and results in which they have participated. This ensures that they are not exposed to information about competitions they were not involved in, promoting fairness and privacy within our family environment. When a child accesses the competition standings section, they only see competitions they took part in. Standings for competitions they didn't participate in are not visible or accessible. Parents have full control over the viewing permissions of competition standings for each child.

Questions: 1) Should parents be able to override the viewing permissions for specific competitions?

2) How will the system differentiate between competitions each child participated in?

Priority: Medium

Time Estimate: 2-3 Story Points

Title: Child Removal Feature for Parental Account Management

Detail: As a parent, I want a feature that enables me to remove any child from my account. This functionality ensures that I have control over the users associated with my parental account, allowing me to manage access and permissions effectively. Parents have the ability to manage the users associated with their parental account. This includes adding new children, removing existing children, and updating user information. Parents can initiate the removal process for any child linked to their account. The removal process should be straightforward and easily accessible from the parent's account dashboard. Upon removal, the child's account and associated data should be securely deleted from the system.

Questions: 1) What happens to the data associated with the removed child?

2) Should it be possible to have an option for a removed child to be re-added to the parental account in the future?

Priority: Medium

Time Estimate: 2 Story Points

- Development tasks assigned in ITR1 (what exactly has been done by developers)

User Story	Development Tasks
Chore Edit and Deletion*	1. Designing UI 2. Defining a “Chore” class 3. Storing each created chore in memory 4. Updating each chore upon edit/deletion
Registration and Login*	1. Designing UI 2. Validating user input for username and password 3. Storing account logins
Chore Sorting Options*	1. Implementing a sorting algorithm 2. Data structure to be implemented
Proof of Completion*	1. Designing UI 2. Doing Event Logging 3. Dashboards/summary page of task after completion 4. Confirmation Page / Updated
Competition Algorithm Implementation*	1. Designing UI 2. Designing a points algorithm with conditional statements 3. Dashboard to showcase results 4. Storing points / Updated frequently 5. Comparison Structure for Siblings
Secure Cash Depositing*	1. Designing UI 2. Generating Excel Sheet / PDF 3. Bank Statement Layout
Database For Storing User Information*	1. Database Setup using SQL 2. Database designing to accommodate all user information (i.e. appropriate tables, fields) 3. Establish Connection to database 4. Unit and Integration Testing
Restricted View of Competition Standings for Parental Control*	1. Competition Participation Tracking 2. Design the database to record and store participation. 3. Standings Display on UI 4. User Access Control system to manage the view of both parent and child/ 5. Unit Testing
Child Removal Feature for Parental Account Management*	1. Designing UI 2. Modifying to add removal feature 3. Database recording and storing 4. Unit Testing

- The time planned for the development tasks and detailed user stories and the actual time it took, in ITR1

Times originally allocated per development task / Actual time spent on each task (in story points) in ITR 1:

User Story	Development Tasks	Original Time	Actual Time
Chore Edit and Deletion	1. Designing UI 2. Defining a "Chore" class 3. Storing each created chore in memory 4. Updating each chore upon edit/deletion	**2**	**2**
Registration and Login	1. Designing UI 2. Validating user input for username and password 3. Storing account logins	**3**	**4**
Chore Sorting Options	1. Implementing a sorting algorithm 2. Data structure to be implemented	**1**	**2**
Proof of Completion	1. Designing UI 2. Doing Event Logging 3. Dashboards/summary page of task after completion 4. Confirmation Page / Updated	**3**	**2**
Competition Algorithm	1. Designing UI 2. Designing a points algorithm with conditional statements 3. Dashboard to showcase results 4. Storing points / Updated frequently 5. Comparison Structure for Siblings	**2**	**2**
Secure Cash Depositing	1. Designing UI 2. Generating Excel Sheet / PDF 3. Bank Statement Layout	**4**	**3**
Database For Storing User Information*	1. Database Setup using SQL 2. Database designing to accommodate all user information (i.e. appropriate tables, fields) 3. Establish Connection to Database 4. Unit and Integration Testing	**4**	**6**
Restricted View of Competition Standings for Parental Control*	1. Competition Participation Tracking 2. Design the database to record and store participation. 3. Standings Display on UI 4. User Access Control system to manage the view of both parent and child 5. Unit Testing	**2-3**	**3**

Child Removal Feature for Parental Account Management*	1. Designing UI 2. Modifying to add removal feature 3. Database recording and storing 4. Unit Testing	**2**	**2**