

SMART AIR: Notes + Video

WAIVED FEATURES:

Approved by TA - Meeting with Anna, Nov 29, 2025 | 2:00 pm

Due to our reduced team size, our TA approved waiving approximately 20% of the app requirements. We decided on waiving the following requirement:

R2 - In-App Labels (“Shared with Provider” Tag)

- *Original requirement:* items shared with the provider should display a “shared with provider” tag inside the app
- *Implementation:* we fully implemented granular sharing per child, so parents can choose which data categories to share
- *Waived portion:* the visual label/tag UI was not implemented

R2 - Granular Sharing (Summary Charts toggle)

- Original requirement: A simple “Share with Provider” selector with toggles for each data type: rescue logs, controller adherence summary, symptoms, triggers, PEF, triage incidents, **summary charts**
- Implementation: Implemented rescue logs, controller adherence summary, symptoms, triggers, PEF, triage incidents toggles
- Waived portion: the summary chart toggle was not implemented

ASSUMPTIONS

Assumption 1 - Controller Dose Schedule

- *Ambiguity:* the requirements specify setting a “planned controller schedule” but do not clarify whether this is scheduled by time-of-day or simply by frequency
- *Assumption:* the child is required to take the controller at least once per day, and the parent chooses how many times per day (1, 2, 3, etc.)
- *Implementation:* the planned schedule input is a positive integer, representing the number of controller doses expected per day
- *Reasoning:* simpler for families - aligns with how asthma controller routines typically work

Assumption 2 - Interpreting “Pre/Post Med PEF Values” (R4)

- *Ambiguity:* “Manual PEF entry, with optional pre/post med values” - it is unclear whether the user must explicitly mark entries as “pre” or “post” medication
- *Assumption:* users can enter PEF at any time, and because each entry and medication log automatically includes a timestamp, the system can infer pre/post med values
- *Implementation:* PEF entries and medicine logs are timestamped so if needed, interpreting “pre/post” can be done by comparing timestamps
- *Reasoning:* avoids UI clutter or confusion by not forcing the user to manually categorize entries and providers/parent can still see the relationship between med usage and PEF

Clarification - Entry Author Label (R5)

- *Requirement:* "Entry author: Each entry is labeled Child-entered or Parent-entered"
- *Issue:* both the child and the parent can submit a daily check-in from the same child profile - there is no reliable technical way to distinguish who actually pressed the button
- *Clarification:* the TA confirmed that the "entry author" label is not required so long as a parent is able to submit a daily check-in on behalf of the child which the parent can do by accessing the child's profile

VIDEO PROJECT DEMO

<https://youtu.be/8zl9THKY7Yo>

GITHUB REPO LINK

https://github.com/RabiahI/b07_smart_air.git

SMART AIR Meeting Minutes

MEETING #1: November 6, 2025 | 2:00 pm

Name	Completed	Next	Obstacles
Jason V	Registration/Login Page Landing pages for role Firebase Integration	Password recovery	-
Jason T	Connected to firebase, set up Android studio	Add child management page to parent home screen	Figuring out where group members progress is, how to work off that
Sylvia	Connected to firebase, started setting up project files	Create onboarding instructions that explain app features, roles, privacy	Learning how to utilize android studio, how to work with other group member's code
Rabiah	UI for child management feature Functionality for add child button	Functionality for edit and delete child buttons Push changes into sprint branch Restructure database to include subclasses	Navigating and accessing branches for updates

Meeting Notes:

Users:

```
|__ Child
|__ Provider
|__ Parent
    |__ Child
```

[EXAMPLE STRUCTURE OF CLASSES]

- Name of sprint 1 branch: feature/SPRINT-1/navigation-and-onboarding
 - As you implement your user stories - if there are any features, files, etc that others would need for their implementation - push it to this branch as well
- Change User to be superclass of the 3 possible roles
 - Remove the role string and make it check its class
 - Fix Login.java Lines 92-125 to reflect these changes
 - Fix Registrations Line 102
- For Children under Parents, require parents password to access parent stuff outside of Child profile

MEETING #2: November 9, 2025 | 3:00 pm

Name	Completed	Next	Obstacles
Jason V	Linked pages together	Password recovery Child Login Work on User Classes	Time constraint
Jason T	Planning UI structure	Design of the home page for each of the parent and provider	Android studio
Sylvia	Added a popup with onboarding instructions after users register	Fix functionality and see how to get the pop-up to show up on the homepage rather than the registration screen	Learning how to use android studio
Rabiah	Added edit/delete/cancel functionality Restructured database	Create one-time link/code for providers Design child homepage	Navigating branches and team members updates

Meeting Notes:

- For Children under Parents, require parents password to access parent stuff outside of Child profile (done)
- Navigation toolbar
- Parent homepage
 - Button that leads to manage children (done)
 - Log out button (done)
 - Alerts/notification board (most important - shows up first on homepage)
 - Dashboard - as a Parent, I want to see today's zone, last rescue time, weekly rescue count, and trends so I can get a quick overview of my child's status
 - Button for logging in as a child (can only access parent page again with the password) (done)
 - Manage child page (done)
 - View child's dashboard button - quick overview of child's information)not entire homepage)
- Provider homepage:
 - Logout button
 - Similar to parent but read-only
- Child homepage:
 - Logout button
 - Logs medicines and symptoms; sees gamified technique helpers and simple guidance

MEETING #3: November 11, 2025 | 11:00 am

Name	Completed	Next	Obstacles
Jason V	Split User into subs Child login/out using Parent Pass confirmation	Credential Recovery	- Time Constraints
Jason T	Refactored parent home page, added notification box	Complete provider home page	
Sylvia	Fixed popup so that it would appear on homepages, added general onboarding instructions	Implement toggle for which types of information are shared with provider	
Rabiah	Added generation of one-time codes for providers on parents home screen	Implement the one-time code feature on the providers homescreen	Time constraints

Meeting Notes:

Workflow:

- We'll have 3 sprint branches : sprint-1, sprint-2, sprint-3
- Each new feature or user story gets its own feature branch created from the current sprint branch
- When you finish (or partially finish) a feature:
 - Create a PR to merge it into sprint branch (text on discord so a team member knows and can review and accept)
 - In the PR, explain what you added and if others might need it (and if you're not fully done yet, mention that)
- If your feature is fully done, merge and delete your branch after
- If it's partially done, merge but keep your branch until it's complete
- Always pull from the sprint branch for the latest updates (NOT from other feature branches to avoid confusion)
- If you need something from another branch, ask that person to merge it into the sprint branch
- For small fixes or design tweaks, you can push straight to the sprint branch (but use clear commit messages) - seems unnecessary to create a whole new branch just for that
- At the end of each sprint:
 - The team reviews the sprint branch together
 - Once approved, its merged into main (create PR)
 - At least two team members must approve the PR before merging
- Avoid making changes directly to main - always use PRs

MEETING #4: November 13, 2025 | 2:00 pm

Name	Completed	Next	Obstacles
Jason V	Forgot password function Refactored User classes	- Work on PEF system	User classes needing to change with new features
Jason T	Provider homepage based on previous requirements	Make additional changes to parent and provider homepage based on flowchart design	Design of homepages separately
Sylvia	Fixed small bugs with pop, made code more clean	Help design Canva pages	
Rabiah	Invite system on the parent's side	Create child's homepage based on Canva design Fix PR template	

Meeting Notes:

- Created Child, Parent, and Provider homepage designs on Canva
- Moved homepage development into Sprint 2
- Trouble with merging into Sprint branches

MEETING #5: November 16, 2025 | 2:00 pm

Name	Completed	Next	Obstacles
Jason V	PEF button	Triage system	Time Constraints
Jason T		Parent homepage	Time :(
Sylvia			
Rabiah	Canva design for child homepage	Android studio implementation of child homepage Canva design for parent & provider	Busy schedule, not enough time to work on project

Meeting Notes:

MEETING #6: November 18, 2025 | 12:00 pm

Name	Completed	Next	Obstacles
Jason V	Triage	New Reg/Login system	New info from Vincent on things I've already finished :(
Jason T	Completed parent homepage based on additional designs	Fix notification scroll view for parent implementation	
Sylvia	Completed parent-provider toggles UI	Implement toggle functionality	Time limit
Rabiah	Implemented UI for child homepage	Implement log medicine feature	Couldn't replicate canva design exactly

Meeting Notes:

MEETING #7: November 20, 2025 | 3:15 pm

Name	Completed	Next	Obstacles
Jason V	Redid some of the account system	Fix all the bugs that come with it :(Data access failures for certain login paths
Jason T	Fix parent homepage icons and recyclerView for notifications	Work on child streaks and badges	
Sylvia			
Rabiah	Implemented UI for log medicine feature	Implement backend for log medicine	Confusion with requirements, ambiguity in the instructions regarding child sign-up

Meeting Notes:

- Make streaks and badges based on newly logged medicine from child
- Allow parent to change threshold for badge

MEETING #8: November 23, 2025 | 2:00 pm

Name	Completed	Next	Obstacles
Jason V	Switched to permanent invite codes for Parents and Children	Fix the functionality for logging in to a Child	Frequent conflicts across child management files
Jason T	UI for streaks and badges, fix parent homepage id's	Child homepage streaks and badges implementation	Confused about thresholds for child badges
Sylvia	Update UI for toggle features in parent homepage	Connect the toggles to the database so provider can see the shared info	Time restraint
Rabiah	Implemented backend for log medicine logic	Technique helper implementation	Difficulty with interpreting requirements - need to update log medicine now to accommodate technique helper

Meeting Notes:

Bullet points are in order of highest - lowest priority (since some implementations depend on others)

What's left on child end:

- ~~UI + backend for child logging the daily check in (aka symptom log) - sync with the "daily check in" button on child homepage~~
- ~~UI + backend for inventory management (replacing current "technique helper" with a "manage inventory") for the child - so this will only let the child log how much is left, nothing else (i.e. child should NOT be able to edit expiry date, purchase date etc - but they will be able to SEE it)~~
 - Shows a list of medicines with name, purchase date, expiry date, amount left
 - Maybe an action button that says "enter _ puffs left" (I think canister is measured by puffs?)
- ~~PEF logs and triage logs - entered into database under logs (UI done just need to push the data into the database as entries)~~
- ~~the bottom navigation toolbar on the child homepage (the UI is there but there is no code to it so it doesn't actually navigate to the different pages)~~
 - settings page for the child - should be a profile section with the child's details (VIEW only), and a log out button or return to parent dashboard (depending on how they logged in)
 - the history page: a complete log history (i.e. medicine log, symptom log, triage log, and PEF log) - read only can base off provider's view cards

What's left on parent end:

- ~~manage children needs to be updated since parent has a lot more stuff to add for each child - keep what we have so far just add like an extra button for each child that's like "care plan" - idk rename to be more fitting later~~
 - but this button will navigate to a page (or popup depends) where the parent adds extra child details that's NOT related to profile (like the planned controller schedule, PB, thresholds for child badges - i feel like theres more but still is what i rmbr for now)
- ~~implement child toggle feature (i.e. all the data should change depending on the child selected - when navigating to the different pages likely need to use the intent putExtra feature to share the childId with the pages so all the data is synched properly)~~
- implement backend for today's overview (aka sync the last rescue data, the weekly rescue count and trend snippet from last 7 days (toggle option for 30 days instead)
 - Trend snippets might mean the trend of each day's dashboard (i.e. each day's zone, last rescue, and weekly rescue?) - or maybe it should be each days zone and number of rescues that day
 - Could do a line chart for the zones (where green = 3, yellow = 2, red = 1) or a bar chart with each bar colored in
- ~~change the current "export PDF/CSV" button on homepage to "manage inventory" button - this will be the same as what the child sees but the parent can EDIT anything on it~~
 - More specifically, parents will see a list of medicines (usually just 2: rescue inhaler, and controller inhaler), name, expiry date, purchase date, amount left, low flag, expiry warning
 - Will also have an option to add medicine
- implement alert/notification board (i.e. the preview + the full page)
 - the full page can just be a list of all the alerts - maybe have sorting options? if that's too much just default sort either by date or severity - up to you
 - you can look on canva to see an idea of how to format each alert (and what info is included in each alert)
 - Regarding the backend: you'll also need to for this one you'd need to go into each of the relevant activity files and add code that will generate an alert entry if the specific conditions apply) - so its automatic - this is ONLY backend
- ~~implement history browser page (3-6 months R5) filters by symptom, trigger, and date range and can be exported~~
 - Could use a recycler view (i.e a list) with each card having a date, icons, summary, and expand for details option?)
- implement UI + backend for provider report - so pressing the button navigates you to a new page where you first choose a time window for the report and then maybe a preview is shown and then a download PDF button)
 - provider report includes Rescue frequency and controller adherence (% of planned days completed), Symptom burden (counts of problem days), Zone distribution over time, Notable triage incidents (if sharing enabled)

- At least one of these needs to be a chart of some sort (bars/pie)
- ~~implement bottom navigation bar - need to change icons to home, alerts, history, and settings~~
 - alerts will navigate to the same alert page from above point
 - history will navigate to a page of the history browser
 - settings will have basic profile data, buttons that navigate to manage children, and manage sharing - (same page as on homepage), signout

What's left on provider end:

- implement child toggle feature (i.e. all the data should change depending on the child selected - when navigating to the different pages likely need to use the intent putExtra feature to share the childId with the pages so all the data is synced properly)
- Default: implement all features with visibility as GONE and only make it visible if the relevant sharing is provided (essentially these are all histories of all the child logs)- all are read only - we'll have a preview card for each log with a view all option that navigates to the page with the entire history (or maybe limit to last 6 months)
 1. Triage incidents: Card shows:
 - Most recent 1–3 triage incidents
 - e.g. date, outcome (“Escalated”, “Home steps”), maybe zone
 - View all -> goes to history of all triage incidents
 2. Symptom history preview: card shows:
 - recent 2-3 symptom entries
 - Date, child/parent entered, trigger tags
 - View all -> goes to history of all symptom logs (i.e. daily check-in)
 3. Rescue log preview: card shows:
 - recent 2-3 rescue doses
 - Date/time, puff count, zone at time
 - View all -> goes to history of all rescue logs
 4. Controller adherence summary; card shows:
 - “Last 30 days: 83% adherence”
 - Maybe mini indicator (green/yellow/red)
 - All computed from controller logs + planned schedule (which parent defines).
 5. PEF / zone preview
 - Small mini-chart or list: last few days' PEF + zone
 - Button view all goes to history of all pef logs
- Implement bottom navigation bar with home & settings, settings page should include profile information, child profiles (READ only - could show child name, age, and maybe an indicator like “sharing: full / limited”), and an “add child” button where they add the one-time invite code the parent generates, logout

General:

- Need to update onboarding instructions

Logs (these appear in history - both children and parents):

- PEF logs
- Symptom logs - these are essentially the daily check ins
 - Timestamp
 - Symptoms: {night waking = true/false, activity limits = true/false, cough/wheeze = "none" or "mild" or "moderate" or "severe"}
 - Triggers: {exercise = t/f, cold air = t/f, dust/pets = t/f, smoke = t/f, illness = t/f, strong odors = t/f}
- Medicine logs
- Triage incident logs
 - Timestamp
 - flags: {cantSpeakInSentences: true/false, retractions: true/false, blueLips: true/false}
 - rescueAttempts: number
 - optionalPEF: value or null
 - decision: "HomeSteps" or "CallEmergency"
 - escalated: true/false
 - childResponse: "Improved" / "Same" / "Worse" (after 10-min check)

Alerts (NOT logs, NOT history - shown on parent's notification board and maybe real-time toast depending on severity):

- Rapid rescue repeats (>=3 within 3 hours)
- Red-zone day
- "Worse after dose" - will come from medicine logs
- Triage escalation (i.e. if escalated = true on the triage log)
- Low canister
- Expired medication

Reports:

- Provider report PDF (depends on if sharing is enabled for that specific feature)
 - Exports rescue frequency (comes from medicine logs)
 - Adherence % (comes from medicine logs(controller) - timestamp
 - I.e. is the child taking their controller medication daily (or whatever schedule is set up by their parent in settings?)
 - Symptom burden
 - Zone distribution (comes from pefLogs)
 - Triage incidents
- History browser PDF
 - Includes symptom logs (daily check-in) - can include triage but its optional
 - Filter by symptom, trigger (this comes from the daily check-in log), and date range

MEETING #9: November 25, 2025 | 11:00 am

Name	Completed	Next	Obstacles
Jason V	Persistence for child login Added database logging for triage	Continue refining PEF logging	Difficulties with GIT
Jason T	Implementation of streaks and badges page extension for child/parent and UI for this		Don't have implementation of parent choosing threshold for child yet
Sylvia	Created UI for provider homepage	Create page so provider can select which child's data to view	Figuring out how to work with the Firebase database
Rabiah	Implemented technique helper into the controller dose	Implement UI + backend for daily check-in and manage inventory	Time constraints

Meeting Notes:

Remaining work (can fall into 6 modules): - in order of what needs to be done FIRST

1. Child logs (daily check-in, inventory)
2. Parent child management (thresholds, schedule) - need this to do streaks/badges and anything involving controller adherence
3. Parent dashboard (overview + alerts + history browser)
4. Provider dashboard (all read-only previews + histories)
5. Reporting (provider report PDF)
6. Global navigation (bottom nav across roles)

MEETING #10: November 27, 2025 | 2:00 pm

Name	Completed	Next	Obstacles
Jason V	Implemented full Alerts system backend + UI and Parent bottom navbar + history + alerts placeholders	Add sorting/filtering for alerts Add charts	Many crashes due to incorrect logic Parent-home child switching not stable yet
Jason T	Change view for streaks and badges	Bug fixes	Black screen in emulator
Sylvia	Implemented toggle features so parent can explicitly share information with provider	Fix UI for the elements shared	Merge conflict, working with different branches
Rabiah	Implemented daily check-in, inventory (on child and parent's side), and child toggling on parent's homepage	Implement history browser for parents and provider report	Ran into a couple of merge conflicts

Meeting Notes:

MEETING #11: November 30, 2025 | 12:00 pm

Name	Completed	Next	Obstacles
Jason V	Rescue alerts + Rescue graph, Added severity icons + better alert layouts	Add PEF graphs + toggle Make video Fix bugs	Hard to maintain consistent child/parent views dynamically
Jason T	Implemented threshold and controller days when creating a child. Streaks and pages reflect these changes	Fix bugs	
Sylvia	Implemented settings, fixed toggle features	Do testing	Lots of bugs to fix
Rabiah	Implemented history browser & provider homepage + some bug/design fixes	Create demo video + finalize app + documentation	Lack of data to properly test features

Meeting Notes:

- Provider homepage – the second you register it directs you to provider homepage BEFORE asking for invite code (need to change this)
- Streaks & badges issues (not directing to the view all – crashes)
- Provider sharing toggles – everything shows by default and isn't adjusted if parent chooses not to share certain stuff
- Provider homepage – some merge conflicts – get rid of zone card (not part of it)
- PEF entries – child history not working
- Onboarding instructions updates

What's left:

- Refactoring
- Unit tests
- Documentation ([READ.ME](#))
- Demo video