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1. Product Overview

MindFlow is an AI-powered task management app designed for college students with ADHD. It addresses these students' unique challenges by providing ADHD-specific tools such as personalized scheduling, break integration, and behavior tracking. MindFlow's primary goal is to help users stay organized, reduce cognitive overload, and increase productivity while improving mental health outcomes.

2. Scope and Objectives

Scope:

- Take existing research & conduct any necessary research to best understand ADHD learning and task completion patterns
- Develop a task management solution tailored to the needs of ADHD students.
- Integrate features like AI-generated schedules, LMS compatibility (e.g., Canvas), and a chatbot interface.

Objectives:

- **Objective 1:** Deliver an AI-powered task management MVP targeting students with ADHD by the end of Year 1.
 - **Key Result 1:** Achieve 20,000 active monthly users by Year 2.
 - **Key Result 2:** Maintain a user retention rate of 25% after the first 90 days.
- **Objective 2:** Improve engagement and usability through ADHD-specific gamification.
 - **Key Result 1:** Increase average task completion rates by 20%.
 - **Key Result 2:** Add 5 new LMS integrations by Year 3.

3. User Personas

Our typical customer is a college student in the United States diagnosed with ADHD, aged 18–24. They struggle with managing assignments, organizing their schedules, and staying on track due to cognitive overload and difficulty prioritizing tasks. This individual relies on digital tools like Canvas or Google Calendar for academic planning but finds generic task managers overwhelming or insufficient for their specific needs.

They seek a solution that understands their unique challenges, offering structured scheduling with regular breaks, easy-to-use interfaces, and integrations with existing platforms. Beyond functionality, they value personalization, simplicity, and features that reduce anxiety around deadlines, making productivity feel achievable and stress-free.

Primary Persona:

- **Name:** Alex (21, College Junior)
- **Demographics:** College student in the U.S., diagnosed with ADHD.
- **Pain Points:** Struggles to stay on top of assignments, feels overwhelmed by traditional task management tools.
- **Goals:** Stay organized without stress, complete tasks on time, balance academics with personal life.

Secondary Persona:

- **Name:** Jamie (29, Graduate Student)
- **Demographics:** Working professional pursuing higher education, also diagnosed with ADHD.
- **Pain Points:** Difficulty juggling work and academic responsibilities, needs a customizable scheduling tool.
- **Goals:** Use MindFlow to integrate work and study schedules seamlessly.

4. User Stories

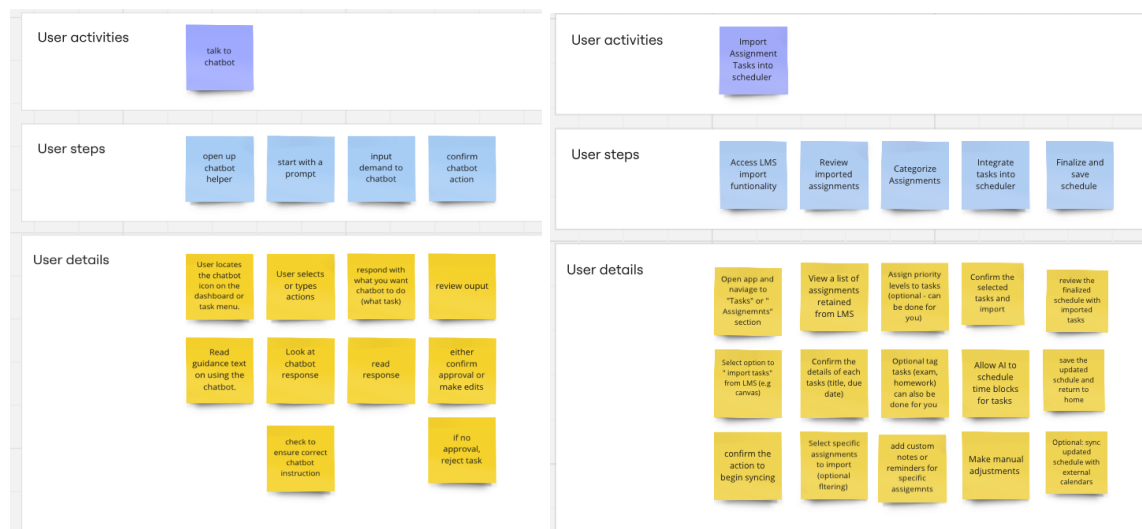
For our product interactions, we envision that our users will want to manage their ADHD symptoms in order to become more productive. Namely:

- As a college student with ADHD, I want to be able to manage my symptoms when doing schoolwork as well as finding ways to best manage my time so I can focus on succeeding in school to the best of my abilities.
- As a high school student with ADHD, I want to find ways to best accomplish my work without having to juggle so many tools and platforms at the same time so I can concentrate on actually doing my work and being productive.

- As a college student with executive dysfunction and ADHD, I want to find ways to adapt my time and day-to-day to fit my needs and behavior without that being a chore so I can be organized and find the motivation to stay organized.
- As a high schooler with anxiety and ADHD, I want to not have to worry about all of the assignments that I have to keep track of and plan doing my chores around so I can reduce my stress and anxiety around school
- As an ADHD college student, I want a chatbot that provides a clear, step-by-step process to help me break down tasks, input my requests, and review the responses in a way that reduces overwhelm and confusion. I need the chatbot to ensure it accurately interprets my input and delivers concise, actionable outputs, so I can stay organized, focus on my work, and manage my time effectively without getting distracted or stressed.
- As an ADHD college student, I want a chatbot that can seamlessly connect my LMS and calendar while also generating and adjusting my schedule based on my tasks and feedback. I need the chatbot to provide clear, step-by-step guidance on my schedule to reduce overwhelm, import tasks automatically, allow for refinements, and confirm successful integrations and schedules, so I can stay organized, focused, and manage my time effectively without unnecessary stress.

Split into user story maps, this looks like the following user activities:

- Talk to chatbot
- Connect LMS/calendar integrations
- Generate/regenerate schedule
- Import assignment tasks
- Add other tasks (e.g. chores)





5. Functional Requirements

See: https://miro.com/app/board/uXjVLQMSISo=/?share_link_id=160049928281 for updated story map.

Chatbot Interaction

- **Purpose:** A chatbot can help users navigate the app and allow them to have some base level of interaction.
- **Priority:** This is high priority - having a chatbot can help enhance support related issues.
- **Dependencies:**
 - The chatbot depends on connection to some existing LLM system, for example, an API to some other chatbot, there will likely be customization (such as finetuning, depending on constraints in resources) for Mindflow's usage.

AI Scheduler

- **Purpose:** The AI scheduler is the core of our product - it's our differentiating factor, having a scheduler that can adapt to a user's own workflow and provide them insightful scheduling tailored to their needs.
- **Priority:** This is the top priority, at minimum, we need an actual AI scheduler to be able to even have an MVP, and the scheduler is easily the most essential part of our app.
- **Dependencies:**
 - The scheduler depends on having a strong core AI system - ideally, we leverage some sort of customization with our AI, likely through fine-tuning, or from other means depending on budget constraints.
 - The scheduler is dependent on being able to interact with the specific webpage properly - that is, we want a scheduler that deals with the hassle of formulating a schedule and the intricacies of having to go through that process. Having an AI scheduler may help in abstracting that work away.
 - The scheduler should also be flexible, being able to support generating/regenerating a schedule - this requires integration of those features (similar to how LLMs allow you to regenerate a response you're unsatisfied with).

Calendar/LMS Integration

- **Purpose:** By leveraging an existing app that handles scheduling/coursework, we're able to map out a person's to-do list effectively.
- **Priority:** This is top priority as well. It helps set a competitive advantage and expands our userbase wildly if we're able to leverage some of the users on existing calendar based systems, and also simplifies the process of scheduling by using an already existing, well refined scheduling product.
- **Dependencies:**
 - Integrating this feature relies on compatibility between our system and these products, as well as an agreed upon partnership.
 - Integrating this also depends on how easily our existing systems can support another system, and whether or not we have the computational resources to do so.

Import Assignments into Calendar

- **Purpose:** To run effective schedules quickly, it may be needed to import assignments into the calendar directly. This allows for the scheduler to operate quickly.
- **Priority:** This is also top priority - it's part of having our MVP and making using the app much more accessible for users.
- **Dependencies:**
 - Mindflow needs to be compatible with assignment/popular to-do list markers (like Canvas or Notion), and needs to be able to read in assignment data from there.
 - Mindflow also needs to be able to support quick mapping of assignments to the actual calendar, so this feature needs to be integrated as well.

Onboarding Tutorial

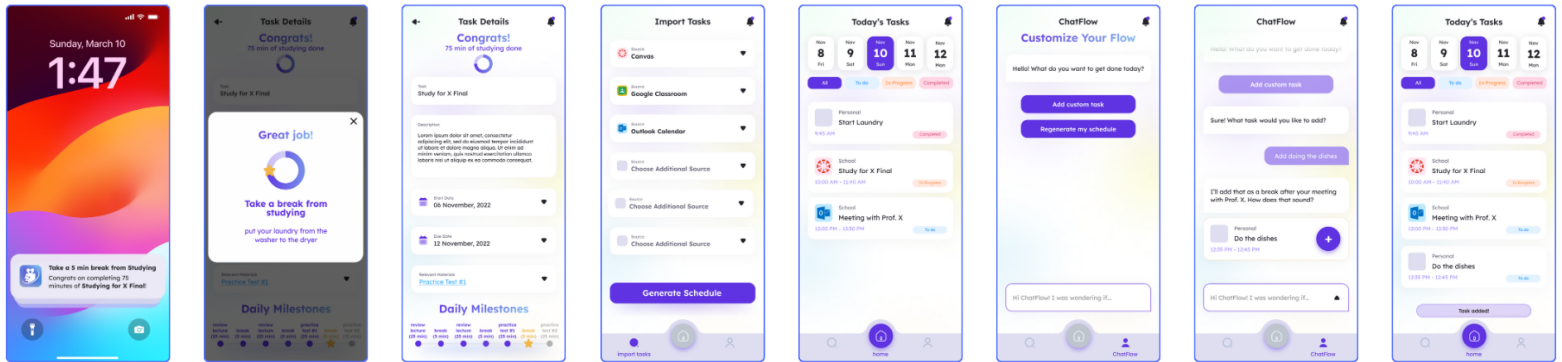
- **Purpose:** A tutorial that guides the user through usage of the app.
- **Priority:** This is a top priority as well - if people don't know how to use our product, then it's functionally useless. This tutorial is similar to the tutorial for our past story map.
- **Dependencies**
 - Relies on an existing system that works (so that we actually have something we can guide the user with)
 - Integration is also dependent on us having the proper technology to be able to guide the user through.

6. Non-Functional Requirements

- **Performance:** Schedules must generate in under 5 seconds.
- **Scalability:** Infrastructure must support up to 1 million users by Year 3.
- **Security:** Compliance with GDPR and HIPAA to ensure user data privacy.
- **Accessibility:** Ensure usability for users with cognitive disabilities (e.g., color coding, simple UI).

7. Prototypes

[A Figma prototype](#) has been created to demonstrate MindFlow's core features, including AI scheduling, LMS integration, and chatbot functionality:



It is also a fully-functioning prototype with interactions—click on the play button to test it out!

8. Constraints and Assumptions

Constraints

1. Resource Limitations:

- Limited funding in Year 1, with \$800,000 allocated for initial development and marketing. This budget constrains the hiring of additional developers or marketing personnel.
- The current team consists of five engineers, one UI/UX designer, and a product manager. This limits the speed at which new features and integrations can be implemented.

2. Technical Challenges:

- Integrating with Learning Management Systems (LMS) like Canvas or Google Classroom may require licensing agreements or API limitations, which could delay development or add unforeseen costs.
- The AI scheduling algorithm must balance flexibility with ADHD-specific needs, requiring extensive testing and iteration to ensure accuracy and user satisfaction.

3. Compliance Requirements:

- Adhering to GDPR and HIPAA regulations for data privacy adds complexity to app design and backend development, potentially slowing down deployment.

4. Time Constraints:

- The goal of delivering an MVP within one year demands prioritization of core features (AI scheduling, LMS integration, chatbot interface), potentially leaving secondary features (gamification, expanded integrations) for later phases.

Assumptions

1. Market Viability:

- The ADHD student market is significant, with approximately 2 million college students in the U.S. diagnosed with ADHD. It is assumed that a portion of this demographic is willing to pay for a subscription-based task management app, validating the \$10/month premium price point.

2. Behavioral Adoption:

- Students will find value in features like structured breaks, time-blocking, and behavior tracking, improving productivity and task completion rates, and increasing retention.
- Users will trust and adopt AI-generated schedules, assuming the interface is simple and avoids cognitive overload.

3. Partnership Feasibility:

- Educational institutions (colleges and universities) will be open to partnering with MindFlow to provide task management tools to their ADHD students as part of their mental health and wellness initiatives.
- LMS platforms like Canvas will allow seamless API integrations without prohibitive licensing fees.

4. Technological Assumptions:

- Cloud infrastructure will scale with user growth, ensuring high performance without significant downtime or lag.
- The AI algorithm can be trained effectively with behavioral data from beta testers and refined iteratively.

5. Retention and Growth:

- A 25% retention rate after 90 days is achievable, aligning with benchmarks for mobile apps catering to niche audiences.
- Marketing efforts, including targeted social media campaigns and influencer partnerships, will drive sufficient visibility to achieve an initial user base of 20,000 active monthly users within Year 2.

9. Milestones and Timeline

Milestone 1: Initial App Design and Feature Development (Year 1, Months 1–6)

Description:

This initial development phase focuses on defining the core functionality and creating a minimum viable product (MVP). This includes integrating key features such as task scheduling, time-blocking, break customization, and learning management system (LMS) sync (e.g., Canvas and Google Classroom).

Deliverables:

- Wireframes and design mockups.
- Functional prototype with basic scheduling and break integration.

Key Activities:

- Conduct focus groups with ADHD college students to refine features as we create them.
- Start to develop and test AI-powered task management and chatbot interface.
- Ensure we are following data privacy and compliance with relevant laws.

Timeline: Months 1–6.

Milestone 2: Beta Testing (Year 1, Months 7–12)

Description:

In this phase we will introduce the app to a small audience for initial feedback. Our beta testing will focus on validating the usability, productivity impact, and overall satisfaction of the app.

Deliverables:

- Beta version of MindFlow with core features.
- User feedback report.

Key Activities:

- Recruit 75–150 college students with ADHD for beta testing. (# of beta test participants based on research <https://www.centercode.com/blog/how-many-beta-testers>)
- Monitor task completion rates, retention, and user satisfaction of our beta test participants.
- Identify the biggest pain points and refine features based on user data and feedback reports.

Timeline: Months 7–12.

Milestone 3: Feature Expansion and Optimization (Year 2, Months 1–6)

Description:

Expand MindFlow's functionality by using and addressing feedback from beta users to incorporating improved features, such as enhanced personalization with our new data)

Deliverables:

- Updated version of the app

Key Activities:

- Develop enhanced and improved features to improve engagement.
- Improve chatbot interface for better usability.
- Perform more quality assurance and usability testing.

Timeline: Year 2, Months 1–6.

Milestone 4: Full Launch and Scaling (Year 2, Months 7–12)

Description:

Launch our finalized product to the market with a targeted marketing campaign to reach ADHD college students in the United States.

Deliverables:

- Fully operational app and marketing materials to promote app.
- Metrics dashboard for tracking user engagement, growth and KPI's.

Key Activities:

- Execute marketing campaigns via social media, partnerships with universities, and ADHD-focused spaces.
- Monitor the user acquisition rates, retention, and feedback.
- Evaluate subscription plans revenue models.

Timeline: Year 2, Months 7–12.

Milestone 5: Continuous Improvement and Feature Integration (Year 3 and Beyond)

Description:

Go through user feedback to further enhance the app, adding new integrations, expanding the user base and improving any way we can (prioritizing most impactful improvements). Explore advanced AI features and collaborations with mental health professionals and tech advances at this point in time.

Deliverables:

- Continuous app updates and feature releases.
- Expansion to additional regions and educational platforms.

Key Activities:

- Implement advanced AI for predictive scheduling and personalized suggestions.
- Develop partnerships with wellness and mental health organizations.
- Measure long-term impact on users' productivity and mental health.

Timeline: Ongoing post-launch.

10. Resource Requirements

- **Team**
 - 5 Software Engineers (to build out the app)
 - 1 UI/UX Designer (to design the app and ensure smooth chatbot-user interactions and user experience)
 - 1 Product Manager (to keep the team aligned)
- **Technical**
 - Cloud hosting (AWS or GCP)
 - NLP models for chatbot
 - APIs for LMS integration (e.g., Canvas API).

11. Testing and Quality Assurance

Testing Strategy:

- **Unit Testing:** Validate AI scheduling and chatbot features.
- **Beta Testing:** Conduct a 3-month beta with ADHD students, focusing on usability and retention.
- **Security Audits:** Ensure compliance with data protection regulations like GDPR and HIPAA.

Success Metrics:

- Task completion accuracy within 5%.
- 90% of test users report improved task management efficiency.

12. Metrics and Success Criteria

KPIs:

- Monthly Active Users (MAU): Target 20,000 by Year 2.
- Retention Rate: Maintain 25% after 90 days.
- Task Completion Rate: Improve by 20% for active users within 3 months.
- Subscription Conversion Rate: Achieve a 10% conversion from free to premium users within Year 1.

13. Go to Market

Distribution Channels

- **Online:** Primary distribution through the Apple and Google Play stores for broad accessibility, ensuring global reach and easy updates for new features and bug fixes. Include app optimization for search results in these stores to improve visibility.
- **B2B Partnerships:** Collaborate with universities and integrate with LMS platforms like Canvas and Blackboard to provide tailored solutions for ADHD students, including direct access from university portals. Offer co-branded campaigns with partner institutions to build credibility.
- **Exclusion:** Retail distribution is unnecessary as MindFlow is a digital product, which eliminates the need for physical inventory, reducing overhead costs and focusing resources on online presence and partnerships.

Sales Strategy

- **Freemium Model:** A free version attracts users, while a \$10/month premium plan offers advanced AI scheduling and analytics.
- **Self-Service:** Users can download and subscribe directly via app stores, offering seamless onboarding with in-app tutorials and one-click subscription options for minimal friction.
- **Direct Sales:** Subscription packages sold to schools and colleges for inclusion in student resources.
- **Exclusions:** Avoids ad-based monetization to maintain a distraction-free environment, aligning with the focus needs of ADHD users. Does not rely solely on B2B to ensure accessibility for individual users as well.

Marketing and Promotion

- **Awareness Campaigns:** Utilize TikTok, Instagram, and YouTube for ADHD-focused content, including relatable skits, educational tips, and testimonials. Leverage short-form videos and hashtags to target younger audiences effectively.
- **Influencer Partnerships:** Collaborate with ADHD and education influencers to create authentic, engaging content showcasing how MindFlow improves productivity and reduces stress. Include paid and affiliate partnerships with performance tracking for ROI.
- **Referral Program:** Reward users with premium months or exclusive features for referring friends, creating a word-of-mouth effect and driving organic growth. Include gamified incentives such as leaderboards for top referrers.
- **SEM:** Target ADHD-related keywords, such as "time management for ADHD" and "ADHD student apps".
- **Exclusions:** Avoids pyramid schemes or any tactics that may compromise user trust or the brand's ethical reputation.

Customer Service Strategy

- **Support Channels:** Includes AI-powered chatbots for quick resolutions to common issues like login or subscription inquiries, live support for more complex problems during business hours, and 24/7 helpdesk email support for global accessibility.
- **Documentation:** Comprehensive FAQs and user guides crafted by UX designers and engineers, with a focus on clear, step-by-step instructions, video tutorials, and troubleshooting tips to minimize confusion and frustration.
- **User Communities:** Establish Discord and Reddit groups for peer support, offering ADHD students a space to share productivity tips and troubleshooting help. Regularly host community events or Q&A sessions to foster engagement and loyalty.
- **Feedback Loop:** Allow users to submit tickets for app improvements and bugs directly from the app.
- **CRM for B2B:** Manage institutional partnerships with a dedicated CRM to streamline communication, track metrics like app adoption rates, and provide tailored reports for long-term satisfaction and retention. Offer quarterly check-ins and training refreshers to ensure sustained engagement.

14. References

- For number of beta testers: <https://www.centercode.com/blog/how-many-beta-testers>