

BuildMate: PC Assembly & Upgrade Experience

Build your dream PC with ease

Course UX Design in Web & Mobile App CSIS-3375-004

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Introduction

Background

Building or updating a personal computer (PC) has always been thought of as a chore best left to enthusiasts and users with technical expertise. The demand for in-depth understanding of device compatibility, power requirements, and performance benchmarks makes the process daunting for many novices. Errors like selecting an inadequate power supply or an unsuitable motherboard may rapidly result in frustration and resource loss. The majority of current resources are still technical, text-heavy, and inaccessible to the typical user, despite the rising interest in custom PCs.

Purpose of BuildMate

BuildMate provides an interactive, visually-first environment for PC building and upgrades in order to address these issues. A virtual builder allows users to drag and drop components while getting real-time compatibility checks, performance information, and suggestions for upgrades. To improve decision-making even further, the application models results like system efficiency, rendering speeds, or predicted game performance. Users may sample how various PC cases might appear in their workstation with BuildMate's augmented reality (AR) features. The building process becomes an interesting, simple, and instructive experience thanks to this mix of characteristics.

Significance

BuildMate's importance comes from its capacity to make PC building more accessible. The application encourages curiosity and confidence in users while empowering them to make educated decisions by lowering the technological obstacles that deter novices. BuildMate offers a hands-on, interactive method similar to constructing with LEGO bricks, in contrast to conventional websites or applications that place an emphasis on particular requirements. This helps novice builders, but it also appeals to seasoned users who want performance-based decision-making, efficiency, and visibility. In the end, BuildMate reinvents PC construction as a life-changing activity centered on empowerment, knowledge, and accessibility.

Motto: Assemble. Learn. Upgrade.

Background Research

Market Competitors

1. PCPartPicker
 - Provides a large database of PC components with compatibility checks (PCPartPicker, n.d.).
 - However, it is text-heavy and lacks a visual, interactive building interface.
 - Focuses more on listing and pricing rather than providing a hands-on building experience.
2. NZXT BLD
 - An online PC building service where users choose parts and have a pre-built system (NZXT, n.d.).
 - While it reduces complexity, it removes the hands-on learning and building process.
 - As a result, it is less interactive and less educational than BuildMate.
3. MSI Mystic Light / ASUS Armoury Crate (ecosystem tools)
 - Apps that allow customization of RGB lighting and, in the case of Armoury Crate, hardware monitoring (MSI, n.d.; ASUS, n.d.).
 - Useful post-purchase personalization but not for planning or learning.
 - Unlike BuildMate, they focus only on customization after buying components.

Market Inspirations

1. LEGO Digital Designer
 - Provides a playful, drag-and-drop building experience for LEGO sets (LEGO Group, n.d.).
 - Its intuitive and creative approach inspires BuildMate's visual and interactive design philosophy.
2. IKEA Place (AR app)
 - Lets users preview furniture in their home using AR (IKEA, n.d.).
 - Inspires BuildMate's AR preview feature, allowing users to visualize PC cases in real-world contexts.
3. Canva
 - A design platform accessible for beginners while offering advanced tools for experts (Canva, n.d.).
 - BuildMate adopts a similar philosophy: simple for novices, valuable for enthusiasts.

Why BuildMate is Different

Unlike existing tools that are either text-heavy, oversimplified, or limited to post-purchase customization, BuildMate integrates visual drag-and-drop building, real-time compatibility checks, performance simulation, and AR previews into one unified platform. This combination creates not only a practical tool for decision-making but also an engaging, educational, and empowering experience for all levels of users.

PACT Framework

People

- Novices: Users with little to no technical knowledge who want to build their first PC without fear of making mistakes.
- Intermediate users: Hobbyists who have some knowledge but want a faster and more reliable way to check compatibility and performance.
- Experts/enthusiasts: Users who enjoy building PCs but want additional efficiency, visual simulations, and AR previews to optimize and experiment.

Activities

- Selecting and assembling PC components in a drag-and-drop virtual interface.
- Receiving real-time compatibility checks
- Exploring performance simulations
- Using AR previews to visualize physical appearance of the PC in a real environment.
- Comparing and upgrading existing PC builds with tailored suggestions.

Context

- At home: Users build and visualize PC setups from their personal devices.
- In retail stores: Customers use BuildMate to virtually assemble before purchasing parts.
- In learning environments: Students use the app to learn about hardware, compatibility, and system performance.
- Community spaces: Enthusiasts share builds, recommendations, and performance results.

Technology

- Cross-platform (planned)
- Augmented Reality (AR) integration for visualization of PC cases and setups.
- Drag-and-drop interface optimized for intuitive user interaction.

Value Proposition

BuildMate delivers a transformative PC-building experience by removing the steep learning curve that prevents many users from engaging with custom PC assembly. Unlike existing tools that are text-heavy or limited to static compatibility checkers, BuildMate combines visual interactivity, real-time performance simulation, and AR visualization into one unified platform.

- For novices, it transforms building a PC from a confusing technical task into a fun, guided, and educational experience.
- For enthusiasts, it streamlines research and provides data-driven optimization tools to maximize performance.
- For retailers and educators, it provides an engaging way to demonstrate hardware setups, encouraging exploration and confident purchasing decisions.

In essence, BuildMate empowers users to assemble, learn, and upgrade with confidence by transforming a once intimidating process into an accessible, enjoyable, and empowering journey.

Requirements Gathering

Purpose or Objectives for Requirements Gathering User Study

Purpose

The goal of the BuildMate user study is to understand the requirements, motivations, and challenges users face when building or upgrading a PC. It aims to identify the difficulties consumers encounter such as selecting compatible components or estimating performance so that BuildMate's design can effectively address these issues and deliver a simple, engaging, and user-friendly experience.

Objectives

- Identify the level of technical knowledge among users interested in PC building.
- Understand common challenges users face when selecting compatible components.
- Learn what kind of visual or interactive features users prefer when assembling a PC virtually.
- Gather feedback to design an intuitive, engaging, and educational UI/UX experience.

Choice of User Study and User Sample

A survey was carried out using Google Forms to gather data from a wide audience to ensure that BuildMate meets user expectations. Participants with various levels of PC-building experience were able to express their requirements, difficulties, and preferences through this method.

The target users of BuildMate are individuals who are interested in building, upgrading, or customizing PCs but may encounter challenges due to technical complexity, according to the context of our app idea.

This includes:

- Students or young professionals interested in learning about PC components.
- Gaming enthusiasts who want to build or optimize their own systems.
- Individuals planning to upgrade or customize their existing PCs.
- Beginner builders seeking guidance and compatibility support.

To gather relevant insights, a single survey was conducted focusing on:

- User experience and familiarity with PC building.
- Common challenges and frustrations during the building or upgrading process.
- Features users find most useful in a PC-building tool (e.g., compatibility checker, AR preview).
- The level of guidance and visual assistance users expect from such an application.

Moreover, a single survey was used to capture feedback from a broad range of users instead of using dual perspectives, as the app primarily targets individual PC builders with varying expertise levels.

User Study Survey

The user study for BuildMate was conducted using Google Forms, with a total of 34 participants responding to the survey. The participants represented a diverse range of experience levels, from complete beginners to experienced PC builders. The main objective of this survey was to gain a deeper understanding of users' experiences, motivations, and challenges when building or upgrading personal computers. Through this analysis, the study aimed to identify common pain points such as compatibility issues, budget limitations, and a lack of clear guidance. The findings play a crucial role in shaping BuildMate's design, ensuring that the application effectively simplifies the PC-building process while enhancing usability, engagement, and learning for users at all technical levels.

Survey Questions

1. Which of the following best describes your experience level with building or upgrading a Personal Computer (PC)? *[Multiple Choice]*
 - Novice (I have little to no technical knowledge and have never built one)
 - Beginner (I have some knowledge but need guidance)
 - Intermediate (I have successfully built/upgraded 1-2 PCs)
 - Expert (I am very comfortable building and troubleshooting multiple PCs)

2. What is your primary motivation for building or upgrading a PC? (Select all that apply) *[Checkboxes]*
 - Gaming Performance
 - Professional Work (e.g., video editing, 3D rendering)
 - Cost Savings
 - Learning / As a Hobby
 - Other:

3. What resources or tools do you currently use to learn about or plan PC builds? (Select all that apply) *[Checkboxes]*

- YouTube tutorials
- PCPartPicker or similar websites
- Reddit / Online communities
- Friends or experts
- Manufacturer websites
- Other:

4. How confident are you in choosing compatible components (e.g., CPU and Motherboard) for a PC build? (Please rate your confidence from 1 = Not at all confident to 5 = Very confident) *[Linear Scale]*

Not at all confident

- 1
- 2
- 3
- 4
- 5

Very confident

5. What do you consider a challenge when building or upgrading a PC? (Please select all that apply) *[Checkboxes]*

- Ensuring all components are compatible
- Choosing the best components for my budget
- Understanding performance differences (e.g., "Is this GPU good enough?")
- The physical assembly process
- Finding trustworthy information
- Other:

6. When planning a build, how important is it for you to see what other community members have built or to share your own build with others? (Please rate the importance from 1 = Not important at all to 5 = Very important) *[Linear Scale]*

Not important at all

- 1
- 2
- 3
- 4
- 5

Very important

7. If you have faced challenges during a build in the past, could you briefly describe what happened? *[Open-ended]*

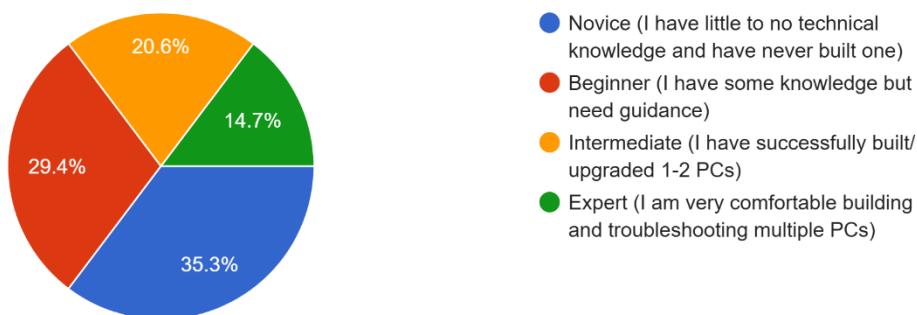
8. What is one feature you wish existed to make the PC building or upgrading process easier? *[Open-ended]*

Data Visualization and Analysis

The following charts and summaries present key findings from the 34 participants, highlighting their experience levels, common difficulties, and desired features.

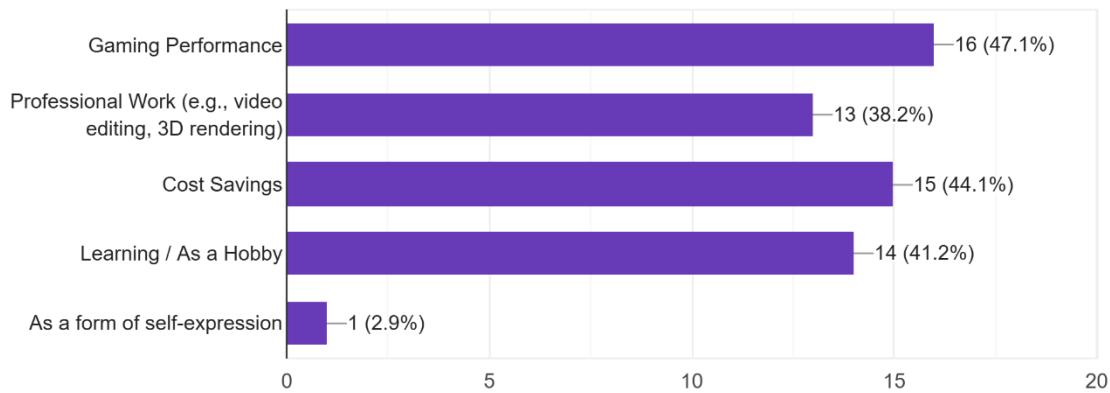
Which of the following best describes your experience level with building or upgrading a Personal Computer (PC)?

34 responses



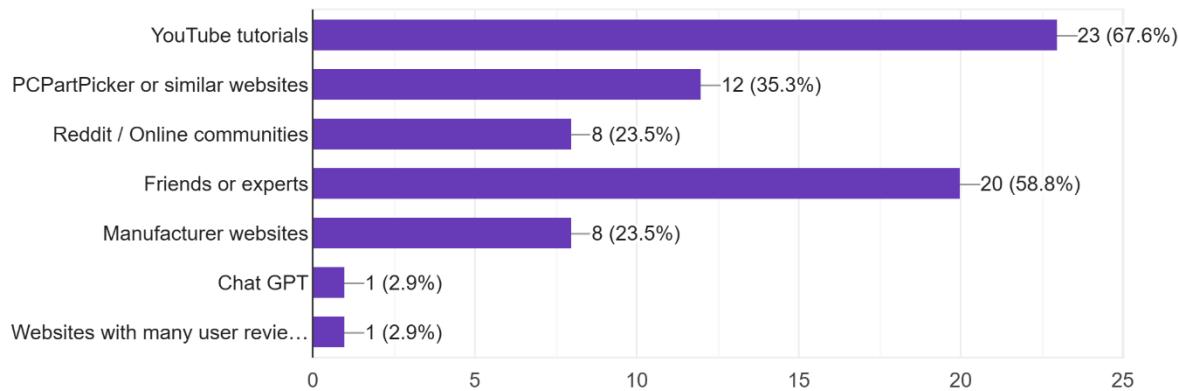
What is your primary motivation for building or upgrading a PC? (Select all that apply)

34 responses



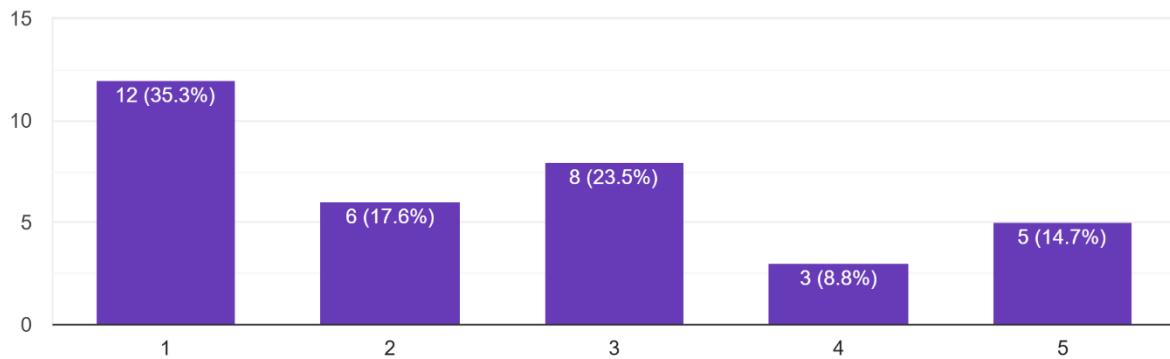
What resources or tools do you currently use to learn about or plan PC builds? (Select all that apply)

34 responses



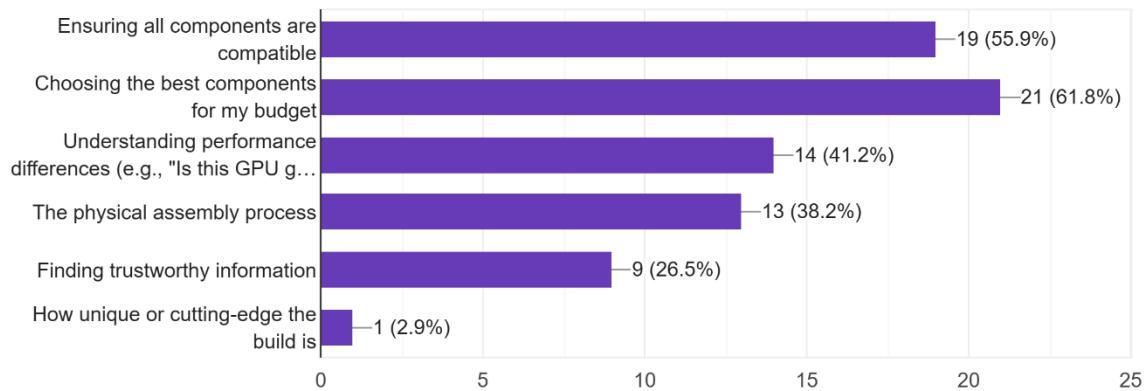
How confident are you in choosing compatible components (e.g., CPU and Motherboard) for a PC build? (Please rate your confidence from 1 = Not at all confident to 5 = Very confident)

34 responses

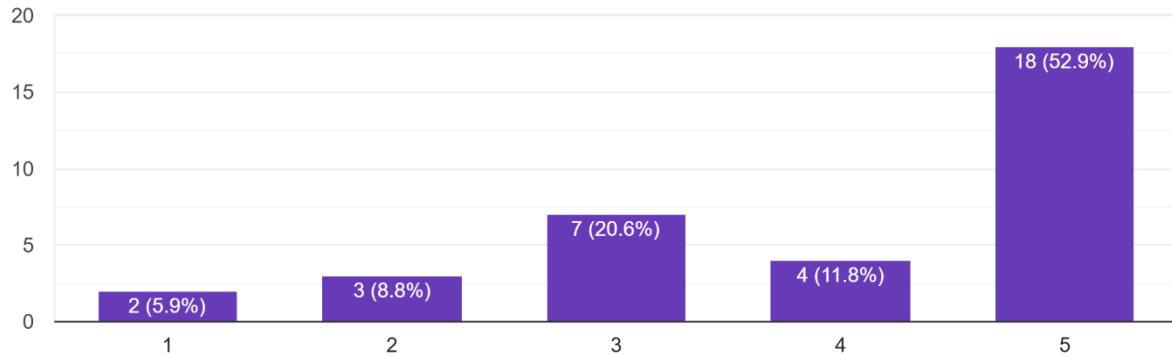


What do you consider a challenge when building or upgrading a PC? (Please select all that apply)

34 responses



When planning a build, how important is it for you to see what other community members have built or to share your own build with others? (Please rate...rom 1 = Not important at all to 5 = Very important)
34 responses



If you have faced challenges during a build in the past, could you briefly describe what happened?

16 responses

I haven't built a computer

Parts are missing

Cable management took too long, and I wasn't sure how to improve airflow.

First time turning on :D

Compatibility issues

A very frequent issue is the PC failing to POST (Power-On Self-Test) because the RAM sticks are not properly seated in the motherboard slots, or they are installed in the wrong slots (not following the dual-channel configuration specified in the motherboard manual). Another common one is using RAM that is technically incompatible with the CPU or motherboard, often resulting in frustrating instability or a failure to boot entirely.

I didn't understand which components were compatible, like which CPU fits which motherboard.

What is one feature you wish existed to make the PC building or upgrading process easier?

19 responses

A real-time simulation that compares performance between different configurations.

A performance estimator that predicts gaming FPS or rendering speed.

check all parts are assembled correctly

All pieces connect themselves autonomously like a magnet

Step by step tutorial would be helpful

A centralized tool that tracks firmware and driver updates for all components.

having conventional connectors and compatibility details with the product

A step by step visual guide that shows exactly where and how to connect each part.

Amazon used to allow unconditional returns even for compatibility issues – it was awesome, but it disappeared as abuse increased. I'd love a similar insurance or support system.

Data Analysis

The collected survey data was analyzed to understand user experience, preferences, and challenges in PC building. Basic statistics such as averages and percentages were used for numerical data. Open-ended answers were grouped into common themes to highlight user needs and suggestions.

Participants experience level

Experience level	Count	Percentage
Novice	8	24%
Beginner	13	38%
Intermediate	7	21%
Expert	5	15%

Around 62% of participants identified as novice or beginner, demonstrating that a majority of BuildMate's target audience has limited PC-building experience.

This supports the need for a guided onboarding process, interactive tutorials, and in-app educational resources to assist users in selecting and assembling components confidently.

Confidence in choosing compatible components (1-5 scale)

Metric	Value
Mean	2.9
Median	3
Mode	3
Standard Deviation	1.1

The average confidence level of 2.9 indicates moderate uncertainty among users when selecting compatible components such as CPU–motherboard or RAM–GPU combinations. The relatively high standard deviation (1.1) suggests a wide variation in technical confidence.

Importance of viewing/sharing community builds (1-5 scale)

Metric	Value
Mean	3.6
Median	4
Mode	4

A large portion of respondents rated this feature as important, demonstrating enthusiasm for community engagement.

Major challenges identified (multiple choice)

Challenge	Percentage
Ensuring component compatibility	64%
Choosing components within budget	52%
Understanding technical specifications	46%
Assembling physical components	27%
Other	9%

According to over two-thirds of participants, the biggest problem was making sure the parts were compatible, which was followed by financial limitations and technical complexity.

Learning resources used (multiple choice)

Resource	Percentage
YouTube tutorials	68%
Friends or experts	59%
PCPartPicker or similar websites	35%
Manufacturer websites	24%
Reddit / Online communities	24%
Other	6%

The most popular learning resources are YouTube tutorials and recommendations from friends or professionals, indicating that users mainly rely on visual and social learning. Popular websites for checking compatibility and specifications are PCPartPicker and manufacturer sites. There is growing interest in new learning resources, as shown by the few users who picked up AI tools or review-based websites.

Qualitative insights (from open ended responses)

Theme	Frequency	Example response
Compatibility issues	12	My CPU didn't fit the motherboard socket.
Budget	9	Couldn't find good parts that match my budget.
Lack of guidance	7	I wish there was a guided checklist or compatibility checker.
Visualization needs	5	It would be helpful to see a 3D model of my build.

Participants consistently emphasized the importance of guided visualization, budget optimization, and compatibility assurance. These findings suggest that users expect a more guided, visual, and informative PC-building experience rather than a purely technical interface, aligning closely with the quantitative results.

Insights from the Results

Key user insights

- Most users are beginners: 62% of participants identified as novice or beginner, indicating the need for an easy, guided onboarding experience.
- Moderate confidence in compatibility: An average confidence score of 2.9 shows that users often feel unsure about selecting compatible parts, highlighting the importance of real-time compatibility checking and smart recommendations.
- High interest in community interaction: With a mean score of 3.6 for community features, users value sharing and exploring other builds suggesting social or collaborative functions would enhance engagement.
- Compatibility and budget are top challenges: 64% struggled with compatibility and 52% with budget control.
- YouTube and peers dominate learning: 68% of users rely on YouTube and 59% on friends or experts, showing a preference for visual and social learning resources.

Requirement implications for BuildMate

- Introduce a guided system for new users, providing interactive tutorials and tooltips.
- Implement a real-time compatibility validation engine for component selection.
- Add a budget planner and recommendation engine that suggests parts within price limits.
- Integrate community features such as build sharing, commenting, and following others' configurations.
- Incorporate visual build representation to enhance understanding and engagement.

Requirements Generation

Personas and Scenarios

Based on our survey data and the key insights, we developed six personas. The following section details these six personas, authored by Ruon Kitahara (4) and Eranda Hettiarachchilage (2).

Persona 1: Alex

Profile:

- Age: 19
- Occupation: University Student
- Experience Level: Novice (I have little to no technical knowledge)
- Motivation: Gaming Performance, Cost Savings
- Challenges: "Ensuring all components are compatible", "Choosing the best components for my budget"
- Confidence: 1/5 (Not at all confident)

Scenario: Building a First PC

1. Alex downloads BuildMate after a friend recommends it.
2. He opens the app and is greeted with a "Guided Mode" for beginners
3. He inputs his total budget: \$1,000. The app displays a budget tracker at the top of the screen
4. The app guides him to select a CPU first. He selects one.
5. When he moves to the Motherboard section, BuildMate automatically filters the list to show only compatible motherboards.
6. He confidently selects a motherboard and RAM. The app provides a green checkmark icon, confirming 100% compatibility
7. He uses the "Performance Simulation" to see the estimated FPS for Fortnite at high settings, confirming his build meets his gaming goals.
8. Alex completes his part list, staying \$20 under budget, and exports the list to purchase the parts. He feels accomplished and confident.

Persona 2: Sarah

Profile:

- Age: 24
- Occupation: Junior Content Creator (Video)
- Experience Level: Beginner (I have some knowledge but need guidance)
- Motivation: Professional Work (video editing)
- Resources: YouTube tutorials, Friends
- Challenges: "The physical assembly process," "Understanding performance differences."

Scenario: Upgrading for Performance

1. Sarah needs to upgrade her PC for 4K video rendering. She uses BuildMate to import her current parts list.
2. She explores new GPUs. The app's "Performance Simulation" shows her how much faster a new GPU will render her Adobe Premiere projects compared to her old one.
3. She finds a powerful GPU but isn't sure if her power supply (PSU) can handle it. BuildMate automatically flags the incompatibility and suggests a compatible PSU upgrade.
4. Before buying, Sarah uses the "Virtual Builder" (a drag-and-drop interface) to practice installing the new GPU and PSU, which eases her anxiety about the physical assembly.
5. She also uses the AR Preview to check if the new, larger PC case she wants will fit on her small desk.
6. Confident in her choices and the assembly steps, she purchases the components.

Persona 3: Kenji

Profile:

- Age: 32
- Occupation: IT Technician
- Experience Level: Expert (I am very comfortable building and troubleshooting multiple PCs)
- Motivation: As a Hobby, Self-expression
- Resources: PCPartPicker, Reddit
- Confidence: 5/5 (Very confident)

Scenario: Sharing a High-End Build

1. Kenji has just finished a custom liquid-cooled build. He logs into BuildMate and navigates to the "Community Hub".
2. He creates a new post, uploading photos and linking all the components from the BuildMate database.
3. His build is featured on the main community page, and he receives comments from other Expert users and questions from Novice users (Persona 1).
4. He browses other builds, filtering by "Expert" and "Water-Cooled."
5. He sees a build from Sarah (Persona 2) asking for advice on her video editing upgrade. He leaves a comment suggesting a specific RAM configuration.
6. Kenji feels engaged in a community of peers, fulfilling his motivation for "self-expression" and hobbyist interaction.

Persona 4: David

Profile:

- Age: 28
- Occupation: Accountant
- Experience Level: Intermediate (I've built or upgraded once)
- Motivation: Gaming Performance
- Resources: PCPartPicker, YouTube
- Challenges: "Ensuring all components are compatible", "Finding trustworthy information."

Scenario: A Mid-Life Upgrade

1. David wants to play the latest Call of Duty but his PC is too slow. He opens BuildMate, where he has his original build saved.
2. He clicks the "Upgrade Recommendation" button.
3. The app scans his components (CPU, Motherboard, PSU) and suggests three modern GPUs that are 100% compatible with his existing setup
4. The app also warns him that one of the GPUs will be "bottlenecked" by his older CPU, helping him understand the "Performance differences".
5. He chooses a mid-range GPU that balances performance and cost.
6. He feels confident he is making the right purchase and won't have to return a part that doesn't work.

Persona 5: Mia Patel

Profile:

- Age: 22
- Occupation: Graphic Design Student
- Experience Level: Beginner
- Motivation: Smooth creative workflow, long-term performance on a student budget
- Resources Used: YouTube, ChatGPT, Friends
- Challenges: "I get confused about which parts actually work together" and "I don't want to overspend on something unnecessary."
- Confidence: 2/5

Scenario: Building a Design Workstation on a Budget

1. Mia decides to build her first PC for graphic design projects. She installs BuildMate after watching a short tutorial on YouTube.
2. She begins with the Budget Mode, setting her maximum spend at \$900.
3. Engine generates a balanced part list optimized for Adobe tools and 3D rendering speed.

4. Mia clicks “Explain My Build,” which shows easy to understand justifications for each component.
5. When she swaps a GPU, the compatibility checker automatically updates PSU requirements.
6. She views a 3D model preview of her case to ensure all parts fit visually
7. She saves her configuration, exports the list, and shares it with classmates through the community hub for feedback.
8. She appreciates that BuildMate turned what felt like a “techie task” into an intuitive guided experience.

Persona 6: Nipun Maitipe

Profile:

- Age: 26
- Occupation: Entry Level Engineer
- Experience Level: Intermediate
- Motivation: Balancing performance and cost efficiency for both work and gaming
- Resources Used: Reddit / Online Forums, Manufacturer Sites, PCPartPicker
- Challenges: “There’s too much conflicting information online,” “I want performance proof before spending.”
- Confidence: 3/5

Scenario: Planning a Balanced Performance Build

1. Nipun opens BuildMate to plan a workstation that can handle CAD design and casual gaming.
2. Using the Advanced Mode, he inputs target workloads “3D modeling” and “AAA gaming.”
3. BuildMate generates three balanced configurations with clear benchmarks.
4. The app’s Performance Simulator shows expected FPS and rendering times for his preferred software, helping him make data driven choices.
5. Unsure about cooling requirements, nipun uses the Community Q&A feature to ask experts.
6. He adjusts his build accordingly and uploads it as “Work + Play Setup,” asking community feedback.
7. Nipun completes his purchase confident that his system is efficient, future-proof, and validated by peers.

Requirements Generated by Designers

Based on the personas and our creative vision for BuildMate, we generated the following requirements that complement the direct findings from the survey.

- (D-1) Guided Onboarding: A step-by-step "Wizard" or "Guided Mode" must exist for Novice personas like Alex, completely hiding the complexity of the full database.
- (D-2) Visual Build Interface: A primary feature must be a "drag-and-drop" visual builder that simulates the physical assembly process, not just a text-based list.
- (D-3) Robust Community Hub: The app must support more than just sharing; it needs commenting, user profiles, and filtering to build a true community.
- (D-4) AR Visualization: To help users like Sarah, an AR preview feature is necessary to visualize the physical footprint of components (especially PC cases).
- (D-5) Performance Simulation: The app must provide estimated performance metrics (e.g., FPS) to help users understand the value of their components, not just the compatibility.
- (D-6) Import/Save Builds: Users must be able to save their builds (for David) or import existing builds to plan upgrades.

Synthesis: Final Prioritized Requirements List

This definitive list combines the insights from Requirements Gathering and Requirements Generation and is prioritized into Must Have, Should Have, and Could Have.

Functional Requirements (FR)

ID	Requirement	Description	Priority
FR-1	Real-Time Compatibility Engine	The system must automatically check component compatibility (CPU-Mobo, RAM-Mobo, PSU-GPU) and provide instant visual warnings.	MUST HAVE
FR-2	Budget/Price Tracker	The system must track the total cost of components in real-time against a user-defined budget.	MUST HAVE
FR-3	Core Component Database	The system must have a searchable database of core PC parts (CPU, GPU, Mobo, RAM, PSU, Storage, Case).	MUST HAVE

FR-4	Community Build Sharing	The system should allow users to create profiles, publish their builds (with photos/parts list), and comment on other builds.	SHOULD HAVE
FR-5	Visual Drag-and-Drop Builder	The system should provide a visual representation of a motherboard/case where users can drag and drop components.	SHOULD HAVE
FR-6	Performance Simulation	The system should provide estimated performance metrics (e.g., FPS, render time) for a build.	SHOULD HAVE
FR-7	Saved Build / Upgrade Path	The system should allow users to save their builds and import them for future upgrade analysis.	SHOULD HAVE
FR-8	Augmented Reality (AR) Preview	The system could allow users to visualize their PC case in their physical space using a smartphone camera.	COULD HAVE

Non-Functional Requirements (NFR)

ID	Requirement	Description	Priority
NFR-1	Usability	The UI must be extremely simple, clean, and provide tooltips or a "Guided Mode" for first-time users.	MUST HAVE
NFR-2	Data Accuracy	The component database (compatibility, price)	MUST HAVE

		must be accurate and regularly updated.	
NFR-3	Performance	The app interface must be fast and responsive, especially the real-time compatibility checks.	MUST HAVE
NFR-4	Aesthetics	The app's visual design should be modern, clean, and engaging, appealing to a gamer/enthusiast audience.	SHOULD HAVE

Design

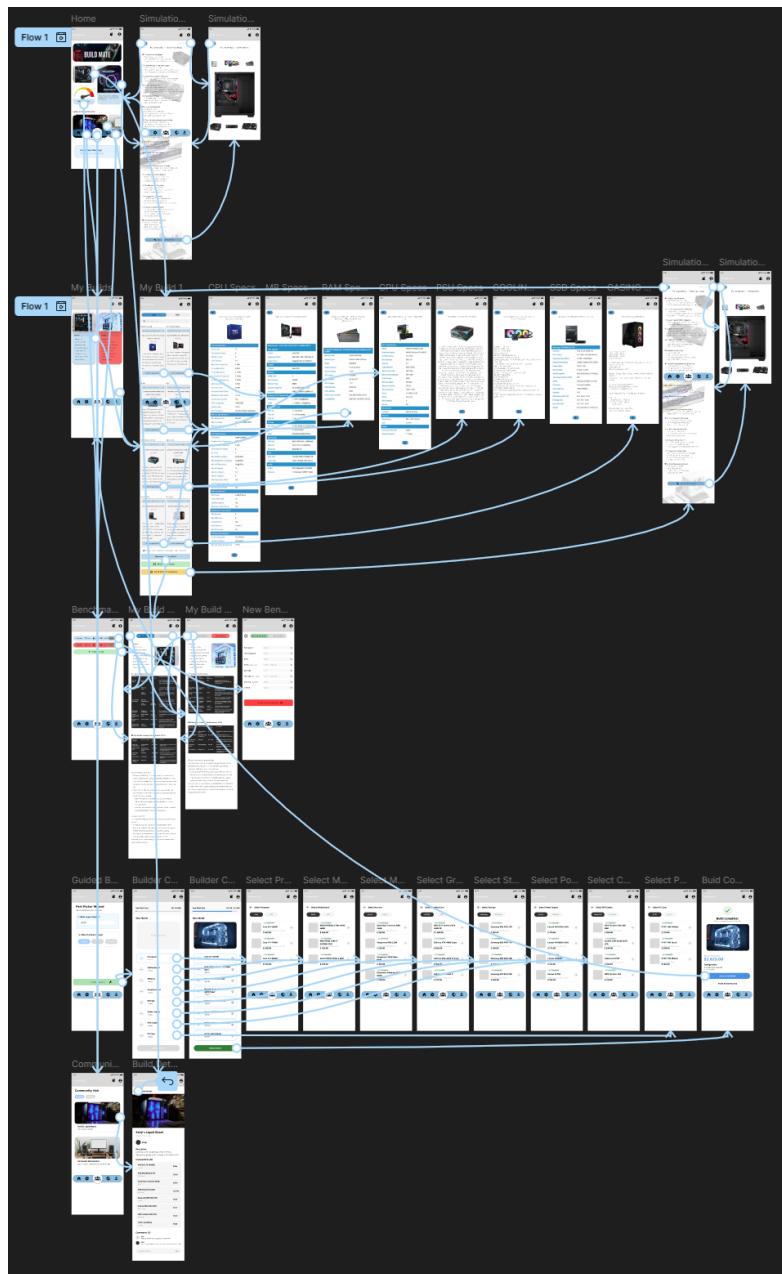
Design Patterns

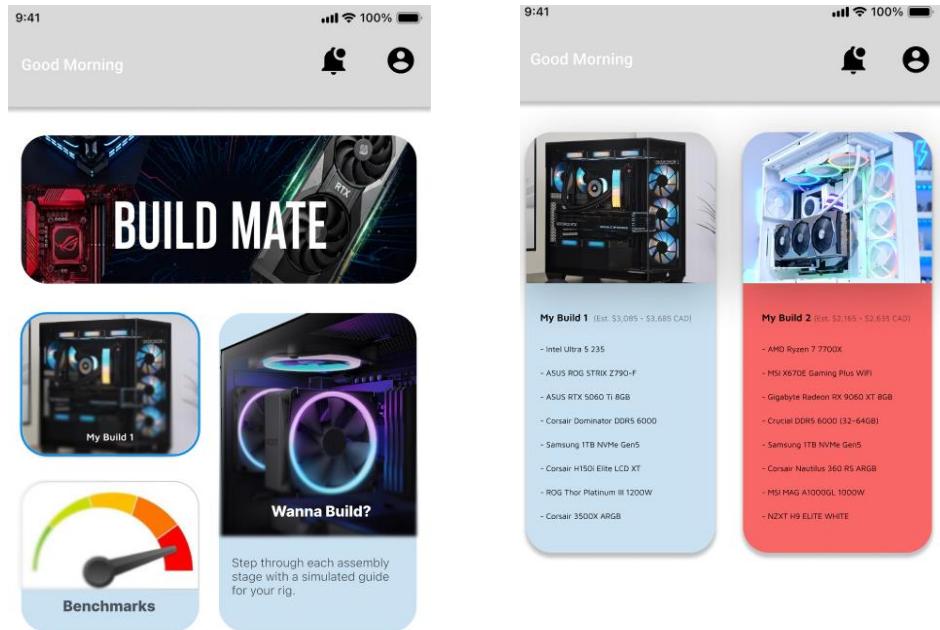
1. Card-Based Navigation
Used for feature selection (e.g., Building a new pc, Community hub, Part Picker Wizard).
Helps users especially understand their options through visual cues.
2. Tab Bar / Bottom Navigation
A simple navigation bar allows users to switch between home, new build, community and benchmarks.
Reduces cognitive load and ensures consistent access to core features.
3. Drag-and-Drop Interaction
Essential for the virtual builder.
Allows users to place components directly onto the board/case model, similar to constructing LEGO sets.
4. Dropdown Menus
Used for Part Category selection.
Follows a simple closed → open variant pattern.
5. Step-by-Step Guided Workflow
Designed for novices who selected “Guided Mode.”
Breaks the build process into small, understandable steps.

Key Design Choices

1. Visual-First Approach
Survey results showed 62% of participants identified as novice or beginner, meaning a visual interface is essential.
Complex PC part names can intimidate new users, so visuals help reduce fear and confusion.
2. Color Combinations
Light Blue for Intel-based builds and Red for AMD-based builds to create instant visual recognition.
Additional neutral, minimalist colors help maintain a clean and modern aesthetic.
Colors also help users quickly differentiate categories.
3. Minimalist Layout for Clarity
Reduces information overload, especially for beginners.
Helps users focus on compatibility, pricing, and core features instead of unnecessary UI noise.
4. Icons and Labels Together
5. Large, Touch-Friendly Components
Large cards, clear spacing, and accessible tap areas improve usability and comfort.

Workflow on Figma





Latest on the Community



Need Help Choosing?

Take a quick quiz to find best parts.

9:41

Good Morning

Intel AMD

Search for any item...

PROCESSOR

ASUS Core Ultra 5 Processor 235 (24M Cache, up to 5.00 GHz) \$490 - \$550

14-core (6 P-cores + 8 E-cores), 14-thread CPU with 24 MB Smart Cache, up to 5.0 GHz turbo, supports DDR5 memory, integrated Intel Graphics with 3 Xe-cores, and AI acceleration via Intel DL Boost and AI Boost NPU.

[View full specifications](#)

ASUS ROG STRIX Z790-F GAMING WIFI II

High-end Z790 motherboard with support for Intel 12th-14th Gen CPUs, DDR5-8000+ memory, PCIe 5.0 GPU slot, five M.2 slots, Wi-Fi 7, 2.5Gb LAN, extensive USB options, and SupremeFX ALC4080 audio.

[View full specifications](#)

RAM

CORSAIR DOMINATOR TITAN RGB DDR5 6000MHz (32GB) KIT \$380 - \$450

Premium DDR5 memory featuring a solid aluminum heat spreader, vibrant RGB lighting, and support for both Intel XMP and AMD EXPO. Delivers up to 6000MHz speeds with tight CL30 timings, ideal for high-performance gaming and workstation builds.

[View full specifications](#)

ASUS PRIME RTX 5060 Ti 8GB GDDR5 OC \$360 - \$420

A high-performance ASUS PRIME RTX 5060 Ti with 8GB GDDR5, 772 TOPS AI power, fast 280ops memory, PCIe 5.0 support, and triple DisplayPort for smooth 4K@144Hz gaming and content creation.

[View full specifications](#)

POWER SUPPLY

ASUS ROG THOR PLATINUM II 1200W \$440 - \$600

ASUS ROG Thor Platinum II 1200W PSU delivers ultra-efficient 100% PLATINUM power with Geti MOSTEST, GPU-first voltage stabilizer, modular cables, magnetic OLED display, and ATX 3.1 compliance for rock-solid gaming and workstation performance.

[View full specifications](#)

COOLING

Corsair iCUE H150i ELITE LCD XT Display Liquid CPU Cooler \$420 - \$480

Corsair iCUE H150i ELITE LCD XT is a 360mm liquid CPU cooler with triple 120mm AF RGB ELITE fans, aluminum radiator, LCD display, digital fan control, and broad Intel/AMD socket compatibility for high-performance cooling.

[View full specifications](#)

STORAGE

Samsung 970 PRO NVMe PCIe 5.0 1TB \$220 - \$280

Samsung 970 PRO NVMe H.2 SSD delivers blazing speeds up to 14,700/13,300 MB/s, 1,850/1,200 IOPS, AES 256 encryption, 128 LPDDR4X cache, low power draw, and Samsung V-NAND TLC for reliable high-performance storage.

[View full specifications](#)

Estimated TOTAL Cost(Excluding Taxes/Shipping): \$3,685 - \$3,685 CAD

Benchmark My Build

Show in AR Mode

Build this in Simulator

9:41

Good Morning

Intel® Core™ Ultra 5 Processor 235 (34M Cache, up to 5.00 GHz)

ASUS ROG STRIX Z790-F GAMING WIFI II

CPU Specifications

Total Cores	14
Performance-cores	6
Efficient-cores	8
Total Threads	14
Max Turbo Frequency	5 GHz
P-core Max Turbo	5 GHz
E-core Max Turbo	4.4 GHz
P-core Base Frequency	3.4 GHz
E-core Base Frequency	2.9 GHz
Intel Smart Cache	24 MB
Total L2 Cache	26 MB
Processor Base Power	65 W
Maximum Turbo Power	121 W
Intel DL Boost (CPU)	Yes
CPU Lithography	TSMC N3B
Launch Date	Q1'25
Use Conditions	PC/Client/Tablet, Workstation

Memory Specifications

Max Memory Size	256 GB
Memory Types	Up to DDR5 6400 MT/s
Memory Channels	2
ECC Memory Supported	Yes

GPU Specifications

GPU Name	Intel® Graphics
Graphics Base Frequency	300 MHz
Max Dynamic Frequency	2 GHz
GPU Peak TOPS (Int'l)	6
Xe-cores	3
Max HDMI Resolution	8K @ 60Hz
Max DisplayPort Resolution	8K @ 60Hz
Max eDP Resolution	4K @ 60Hz
DirectX Support	12
OpenGL Support	4.5
OpenCL Support	3
Intel Quick Sync Video	Yes
# of Displays Supported	4
Intel DL Boost (GPU)	Yes

NPU Specifications

NPU Name	Intel® AI Boost
Peak TOPS (Int'l)	13
Sparcity Support	Yes
Windows Studio Effects	Yes

Expansion & Connectivity

DMI Revision	4
Max DMI Lanes	8
Thunderbolt 4	Yes
PCIe Revision	5.0 & 4.0
Max PCIe Lanes	24

Package Specifications

Socket Supported	FCLGA1851
Thermal Solution	PCG 2022C
Max Operating Temperature	105°C

9:41

Good Morning

ASUS ROG STRIX Z790-F GAMING WIFI II

Motherboard – ASUS ROG STRIX Z790-F GAMING WIFI II

CPU Support

Socket	LGA1700
Supported CPUs	Intel 14th / 13th / 12th Gen, P...
Turbo Boost	Supports TB 2.0 & TBM 3.0

Chipset

Chipset	Intel Z790
---------	------------

Memory

DIMM Slots	4
Max Capacity	192GB
Memory Type	DDR5
Speeds Supported	Up to DDR5-8000+ (OC)
Features	XMP, OptiMem II, AEMP II, D...

Graphics (CPU Dependent)

DisplayPort	1 x DP 1.4 (8K@60Hz)
HDMI	1 x HDMI 2.1 (4K@60Hz)

Expansion Slots

PCIe 5.0	1 x x16 (CPU)
PCIe 4.0	1 x x16 (x4 mode)
PCIe 3.0	1 x x1

Storage

M.2 Slots	5 x M.2 (PCIe 4.0, 2242-22110)
SATA	4 x SATA 6Gb/s
RAID	PCIe/SATA RAID 0/1/5/10

Networking

Ethernet	Intel 2.5Gb LAN + LANGuard
Wireless	Wi-Fi 7 (2x2, 2.4/5/6GHz)
Bluetooth	Bluetooth 5.4

USB

Rear USB	14 ports (USB-C 20Gbps, US...
Front USB	USB-C 20Gbps (30W PD, U...

Audio

Codec	ROG SupremeFX ALC4080
Features	5.1 Surround, S/PDIF, 32-bit/...



CORSAIR DOMINATOR TITANIUM RGB DDR5 6000MHz - AMD Expo & Intel XMP (32GB-64GB) KIT



CORSAIR DOMINATOR TITANIUM RGB DDR5 6000MHz (EXPO & XMP)

Memory Size	32GB-64GB Kits
Memory Type	DDR5 UDIMM (288-pin)
Speed	6000MHz
Tested Latency	CL30-36-36-76
Tested Voltage	1.40V
SPD Speed	4800MHz
SPD Latency	40-40-40-77
SPD Voltage	1.1V
Heat Spreader	Aluminum
LED Lighting	RGB
Performance Profiles	Intel XMP & AMD EXPO
Compatibility	AMD 600, Intel 600 & 700 Se...



ASUS PRIME GeForce RTX 5060 Ti 8GB DDR7 OC



GPU Specifications	
Model	PRIME-RTX5060Ti-08G
Graphics Engine	NVIDIA GeForce RTX 5060 Ti
AI Performance	772 TOPs
Bus Standard	PCIe 5.0
OpenGL	4.6
Video Memory	8GB GDDR7
Boost Clock (OC)	2647 MHz
Boost Clock (Default)	2617 MHz
CUDA Cores	4608
Memory Speed	28 Gbps
Memory Interface	128-bit
Max Resolution	7680 x 4320
Ports	1x HDMI, 3x DP
HDCP	Yes (2.3)
Max Displays	4
NVLink	No
Accessories	
Included	Manual & Extras
Physical	
Dimensions	304 x 120 x 50 mm
Slot	2.5 Slot
Power	
Recommended PSU	550W
Power Connector	1 x 8-pin



ASUS ROG THOR PLATINUM III 1200W



Featuring a GaN MOSFET, "GPU-First" patented intelligent voltage stabilizer and a magnetic OLED display, ROG Thor 1200W Platinum III delivers unmatched performance and rock-solid stability for your ultimate PC build. GaN MOSFET delivers up to 30% more power efficiency than standard MOSFETs and a more organized internal layout for cooler operation. "GPU-First" voltage sensing with patented intelligent voltage stabilizer enhances voltage delivery to your graphics card by up to 45% for smoother gaming and unwavering performance. Magnetic OLED display shows a real-time power draw and can be swapped to either side of the unit to accommodate fan-up or fan-down PSU installation. Turbo Mode: Premium components and a fine-tuned fan curve unlock support for extended power excursions. ROG heatsinks and a fully aluminum enclosure synergize for superior cooling, keeping your system thermals under control. Dual-ball-fan bearings can last up to twice as long as sleeve bearing designs. ATX 3.1 compatible: ROG Thor Platinum III is compliant with the ATX 3.1 standard, ensuring enhanced voltage and current regulation for the latest hardware. Etched modular cables with a pliable premium material ensure effortless cable management and exceptional safety. Lambda A++ Certification: Certified low noise levels, below 15 dB. 80 PLUS Platinum certified: ROG Thor III utilizes low-ESR capacitors and premium components for industry-leading power efficiency.



Corsair iCUE H150i ELITE LCD XT Display
Liquid CPU Cooler



Product Length 397
Product Width 119.6
Product Height 119.6
Number of Fans 3
Radiator Material Aluminum
Fan Dimensions 120mm x 25mm
Cooling Socket Support Intel 1700, Intel 1200, Intel 1150, Intel 1151, Intel 1156, Intel 2011, Intel 2066, AMD sTR5, AMD AM5, AMD STR4, AMD AM4
Fan Speed 550 - 2100 RPM ±10%
Fan Airflow 13.8 - 65.57 CFM
Fan Static Pressure 0.17 - 2.68 mm-H2O
Radiator Size 360mm
iCUE Software Yes
Fan Model AF RGB ELITE
Tubing Length 450mm
Coldplate Dimensions 56x56mm
Tubing Material Black Sleeved Low-Permeation Rubber
Fan Control Method Digital
AMD Processors Supported Ryzen Threadripper, Ryzen, A-Series
Intel Processors Supported Core i9, i7, i5, i3, Pentium, Celeron
Weight 2.61



Samsung 9100 PRO NVMe PCIe 5.0 1TB - 4TB



Samsung 1TB NVMe M.2 SSD

Interface	PCIe 5.0 x4, NVMe 2.0
Form Factor	M.2 2280 / M.2 2280 with Heatsink
Sequential Read/Write	14,700 / 13,300 MB/s
Random Read/Write	1,850K / 2,600K IOPS (QD32)
Power Active	7.6W / 7.2W
Device Sleep	4.0mW / 3.3mW
Data Encryption	AES 256 (Class 0), TCG/Oape...
Total Bytes Written (TBW)	600
NAND	Samsung V-NAND TLC (V8)
Controller	In-House Controller
Cache Memory	1GB LPDDR4X
Capacity	1TB
Dimensions (W×H×D)	0.9 x 0.09 x 3.2 in.
Package Size	3.9 x 0.9 x 5.6 in.
Inner Box Size	7.2 x 5.4 x 9.4 in.
Weight	0.02 lb (Product) / 0.16 lb (Pa...



CORSAIR 3500X ARGB Black



Case Height: 506mm
Case Length: 460mm
Case Width: 240mm
Weight: 10.54kg

Motherboard Support: Mini-ITX, Micro-ATX, ATX, E-ATX (305mm x 277mm)
Case Size: N/A
Case Power Supply: ATX

Radiator Compatibility: 120mm, 140mm, 240mm, 280mm, 360mm
Compatible Liquid Coolers: H60, H100, H115, H150 (All Series)

Maximum GPU Length: 410mm
Maximum CPU Cooler Height: 170mm
Maximum PSU Length: 180mm

Case Expansion Slots: 7 Horizontal or 4 Vertical

Front I/O:
- 1x USB 3.2 Gen 2 Type-C
- 2x USB 3.2 Gen 1 Type-A
- 1x Audio In/Out

Case Window: Tempered Glass
Color Options: Black / White

PC Assembly – Step-by-Step

1. Prepare Your Workspace

- Clear a large, static-free desk.
- Gather all components, tools, and screws.
- Touch a metal surface to discharge static electricity.

2. Install the CPU on the Motherboard

- Unlock the CPU socket lever.
- Align the CPU triangle marker with the socket marker.
- Gently place the CPU and lock the lever back down.

3. Apply Thermal Paste (If Required)

- If your cooler doesn't come with pre-applied paste, apply a pea-sized drop in the center of the CPU.

4. Install the CPU Cooler

- Position the cooler over the CPU.
- Screw or latch it firmly according to the cooler type.
- Connect the pump/fan cable to the CPU_FAN or AIO header.

5. Install RAM Modules

- Unlock RAM slots on the motherboard.
- Insert sticks in the recommended dual-channel slots.
- Press until the latches click.

6. Install the NVMe SSD

- Locate the M.2 slot.
- Insert the SSD at a slight angle.
- Push it down and secure with the M.2 screw.
- Reinstall the heatsink if provided.

7. Mount the Motherboard Inside the Case

- Install standoffs in the case if needed.
- Carefully place the motherboard inside.
- Align screw holes and secure the board.

8. Locate the Power Supply

- PSU into case & connect.
- Screw into place.
- Route major cables (24-pin, 8-pin CPU, PCIe, SATA).

9. Install the Graphics Card (GPU)

- Remove the appropriate PCIe slot covers.
- Insert the GPU into the top PCIe x16 slot.
- Secure with screws and connect PCIe power cables.

10. Connect All Power Cables

- 24-pin motherboard power.
- 8-pin (or 6+4) CPU power.
- PCIe power to GPU.
- SATA/Peripheral power if needed.

11. Connect Front I/O and Case Cables

- Connect power button, reset, HDD LED, power LED.
- USB 3.2, USB-C, and audio header cables.

12. Install Case Fans (If Needed)

- Mount intake fans at the front/bottom.
- Mount exhaust fans at the rear/top.
- Connect to fan headers or a hub.

13. Cable-Manage Everything

- Use zip ties or Velcro straps.
- Route cables through cutouts for a clean look.
- Keep airflow pathways clear.

14. Inspect All Connections

- Check that everything is seated correctly.
- Ensure no loose cables or screws.
- Confirm cooler, GPU, RAM, and PSU connections.

15. Power On and Enter BIOS

- Turn on the PSU and press the power button.
- Enter BIOS (Delete/F2) on startup.
- Check CPURAM storage is recognized.
- Enable XMP/EXPO for RAM.

16. Install the Operating System

- Boot from a USB installer.
- Install Windows/Linux.
- Install motherboard & GPU drivers.
- Update BIOS if needed.

Go to Simulator

PC Assembly – Simulation

Good Morning

9:41

100%

Skip the guide

◀

Intel logo, RGB lighting, and a stack of RAM modules.

Good Morning

9:41

100%

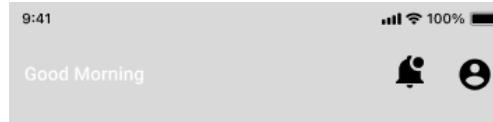
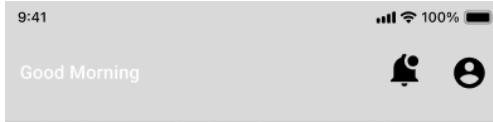
◀

PC case with motherboard, RAM, and GPU installed.

ASUS ROG graphics card.

ASUS ROG power supply.

ASUS ROG RAM module.



← New Benchmark My Build 1

Processor Select...

Motherboard Select...

RAM Select...

RAM 2 (Optional) Select... (Optional)

Storage Select...

Storage 2 (Optional) Select... (Optional)

Cooling (Optional) Select...

Casing Select...

RUN BENCHMARK ⚡





Build Specs

- Intel Ultra 5 235
- ASUS ROG STRIX Z790-F
- ASUS RTX 5050 Ti 8GB
- Corsair Dominator DDR5 6000
- Samsung 1TB NVMe Gen5
- Corsair H150i Elite LCD XT
- ROG Thor Platinum III 1200W
- Corsair 350QX ARGB



Build Specs

- AMD Ryzen 7 7700X
- MSI X670E Gaming Plus WiFi
- Gigabyte Radeon RX 9060 XT 8GB
- Crucial DDR5 6000 (32-64GB)
- Samsung 1TB NVMe Gen5
- Corsair Nautilus 360 R5 ARGB
- MSI MAG A1000GL 1000W
- NZXT H9 ELITE WHITE



System Performance

Component	Metric (Estimated)	Score / Specification	Content & Comparison
Overall PC Status	Effective Speed Rating	155%	UFO (Unbelievably Fast Optimized): High-end enthusiast build, excellent for streaming, rendering, and gaming.
CPU: Intel Ultra 5 235	Multi-Core Speed	~120.8%	Comparable to an Intel Core i5-13600K or AMD Ryzen 9 7900X in multi-threaded tasks.
	Gaming Bottleneck	None	Excellent single-core speeds ensure maximum performance for the GPU at 1440p and 4K.
GPU: ASUS RTX 5050 Ti 8GB	G30 Mark > Effective Speed	~110.8%	Performance is on par w/ or slightly better than an NVIDIA RTX 3070 Ti.
	Target Resolution	1440p High Refresh Rate	Capable of high FPS (> 90 FPS) in most AAA titles. Entry-level 4K gaming supported via DLSS 4.
RAM: Corsair DDR5 6000	Frequency / Configuration	6000 MHz	The "sweet spot" for Intel's platform, providing ideal data access speed.
Storage: Samsung NVMe Gen5	Sequential Read Speed	~8,000 - 10,000 MB/s	Utilizes PCIe 5.0 for near-instantaneous load times.
PSU: ROG Thor 1200W	Power Headroom	Over-Specified	Provides extreme stability, minimum power efficiency (Maxim), and significant room for future upgrades.
Cooler: Corsair H150i Elite LCD XT	Thermal Performance	Exceptional	High-end 360mm AIO ensures the CPU sustains maximum boost clocks under heavy load.

System Performance

Component	Metric (Estimated)	Score / Specification	Content & Comparison
Overall PC Status	Effective Speed Rating	148%	Excellent Balance: Extremely fast CPU/Platform paired with a powerful, but VRAM-limited GPU.
CPU: AMD Ryzen 7 7700X	Single-Core Speed	~115%	Outstanding: The 7700X is one of the best gaming CPUs (non-3D V-Cache), ensuring zero bottleneck at 1440p.
Motherboard: MSI X670E ATX	Chipset	X670E	Excellent Chipset: Supports full PCIe 5.0 for both the GPU and SSDs; ideal platform for high-end AM5.
GPU: RX 9060 XT 8GB	G30 Mark (Synthetic)	~75.0%	Performance is similar to an RTX 3060 Ti or a heavily VRAM-limited RX 7700 XT.
RAM: Crucial DDR5 6000	Frequency / Latency	6000 MHz	This is the ideal "sweet spot" for AMD's Ryzen 7000 series (11 memory controller synchronization).
Storage: Samsung NVMe Gen5	Sequential Read Speed	~8,000 - 10,000 MB/s	Takes full advantage of the X670E and provides near-instant loading times.
PSU: MSI MAG A1000GL 1000W	Power Headroom	Excellent	1000W is far more than required (~400W system draw), guaranteeing maximum efficiency and stability.

Estimated Gaming Performance (FPS)

Game Title (Estimated)	Resolution & Settings	Avg. FPS (Estimated Range)	Key Notes
Eden Ring / Cyberpunk 2077	1440p High/Ultra (RT Off)	85 - 105 FPS	Excellent experience, pushing into high refresh territory.
Cyberpunk 2077	1440p Ultra (Ray Tracing On, DLSS 4 Dnny)	65 - 80 FPS	DLSS 4 with Frame Generation is critical for maintaining high frame rates with ray-tracing enabled.
Call of Duty: Warzone	1440p High	120 - 160 FPS	The high single-core speed of the Ultra 5 235 and the fast RAM excel here.
Forza Horizon 5	4K High/Ultra	60 - 80 FPS	Playable 4K gaming, particularly when using DLSS.
Starfield / New AAA Titles	1440p Ultra	70 - 95 FPS	Very solid performance, but 8GB VRAM may require heavy texture compromises in a few games.

Estimated Gaming Performance (FPS)

Game Title (Estimated)	Resolution & Settings	Avg. FPS (Estimated Range)	Key Limitation
Cyberpunk 2077	1440p High (FSR 4 Quality)	80 - 95 FPS	Strong FSR 4 is essential for hitting 1440p targets.
Cyberpunk 2077	1440p Medium (FSR 4 Performance)	45 - 55 FPS	Acceptable: AMD's Ray Tracing performance is improved, but still trails NVIDIA.
Starfield / New AAA Titles	1440p Ultra	60 - 75 FPS	VRAM Limit: The RX 9060 XT will cause stutters and low % lows when maxing out textures.
Competitive Games	1440p Low/Medium	200+ FPS	CPU Limitations: The i7 7700X is not capable of maintaining high competitive frame rates.
Forza Horizon 5	4K High (FSR 4)	50 - 65 FPS	Borders: It is possible, but textures and settings must be managed carefully due to 8GB VRAM.

Critical Note on the GPU RX 9060 XT 8GB

While the RX 9060 XT is a fast GPU based on the newer RDNA 4 architecture, performance reviews consistently show the 8GB VRAM version struggles significantly in VRAM-heavy titles at 1440p and above.

- In titles like Monster Hunter Wilds or Indiana Jones and the Great Circle, the 8GB model can see a 30-50% performance reduction compared to the 16GB model of the exact same GPU when running high-quality 1440p settings, because it runs out of memory and has to utilize slower system RAM.
- Recommendation: For a premium build with an S\text{X670E}\text{1} motherboard and S\text{X670E}\text{1}\text{R17}\text{7700}\text{E}\text{X5}, consider upgrading to the RX 9060 XT 16GB or the RX 9070 for a truly optimized, future-proof 1440p/4K experience that utilizes the full power of your CPU platform.

CPU & GPU Synergy (Why it works)

- CPU (Intel Ultra 5 235): The new Core Ultra architecture delivers superior single-core performance compared to its predecessor (estimated 15% faster than the i5-13600KF). This is the single most important factor for high-end gaming frame rates, ensuring your powerful GPU is never waiting on the CPU.
- GPU (RTX 5050 Ti 8GB): This card delivers performance estimated to be around the level of an RTX 3070 Ti or better. It is a modern GPU supporting all of NVIDIA's latest technologies:

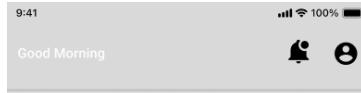
 - DLSS 4: Next-generation upscaling provides significant FPS boosts, effectively letting you run games at a higher resolution (e.g., 4K) with 1440p performance.
 - Multi Frame Generation (MFG): Creates new frames using AI, dramatically increasing the displayed FPS for a smoother experience.

A Note on 8GB VRAM

The one potential limiting factor for this configuration is the 8GB of VRAM on the RTX 9060 Ti.

- At 1440p, this is generally sufficient, but some unoptimized or highly demanding new AAA titles (like The Last of Us Part I or Hogwarts Legacy) at maximum texture settings can exceed 8GB and lead to stuttering.
- For 4K gaming, you will almost always need to rely on DLSS and may need to lower texture quality slightly to prevent hitting the VRAM limit.

In summary, this is an excellent 1440p gaming rig that is also capable of high-quality, upscaled 4K gaming.



Part Picker Wizard

We recommend parts for you.

1. What is your budget?

\$3000

2. What is primary usage?

Gaming

Work

Creative

FIND PARTS



Good Morning

Total Build Cost: \$0 / \$3,000

Your Build

Case Preview Area

Processor Required +

Motherboard Empty +

Memory Empty +

Graphics Card Empty +

Storage Empty +

Power supply Empty +

CPU Cooler Empty +

PC Case Empty +

FINISH BUILD

Total Build Cost \$2,625 / \$3,000

Your Build

Core i7-14700K \$359.00

ROG STRIX Z790-F GAMING WIFI \$330.00

Vengeance RGB 32GB \$125.00

Graphic Card: GeForce RTX 4080 Super \$999.00

Samsung 990 PRO 2TB \$169.00

Corsair RM1000x Shift \$179.00

NZXT Kraken Elite 360 RGB \$285.00

HYTE Y60 (White) \$179.00

FINISH BUILD

Good Morning

Total Build Cost: \$2,625 / \$3,000

Select Processor

Intel **AMD**

Core i9-14900K \$465.00

Core i7-14700K \$359.00

Core i5-14600K \$299.00

FINISH BUILD

The image displays three mobile phone screens side-by-side, each showing a step in a build configuration process. The phones are set against a light gray background.

Phone 1: Select Motherboard

Good Morning

9:41

Select Motherboard

ASUS MSI

ROG MAXIMUS Z790 DARK HERO
High-End, WiFi 7, PCIe 5.0
\$ 649.00

ROG STRIX Z790-F GAMING WIFI
Best Balance, DDR5 Support
\$ 330.00

ASUS PRIME Z790-A WIFI
Clean White Aesthetics
\$ 239.00

Phone 2: Select Memory

Good Morning

9:41

Select Memory

Corsair G.Skill

Dominator Titanium RGB 32GB
2x16GB DDR5 6600MHz CL32
\$ 185.00

Vengeance RGB 32GB
2x16GB DDR5 6000MHz CL30
\$ 125.00

Vengeance 32GB (Non-RGB)
2x16GB DDR5 5600MHz
\$ 105.00

Dominator Platinum RGB 64GB
2x32GB DDR5 5200MHz
\$ 249.00

Phone 3: Select Graphics Card

Good Morning

9:41

Select Graphics Card

NVIDIA AMD

ROG Strix GeForce RTX 4090 OC
24GB GDDR6X, The Ultimate
\$ 1,999.00

GeForce RTX 4080 Super
16GB GDDR6X, 4K Gaming
\$ 999.00

GeForce RTX 4070 Ti Super
16GB GDDR6X, Best Value
\$ 799.00

GeForce RTX 4060 Ti
8GB GDDR6, 1080p Gaming
\$ 379.00

At the bottom of each phone screen is a blue navigation bar containing icons for Home, Settings, Profile, and others.

The image displays three separate mobile device screens, each showing a different step in a component selection process. All three screens are timestamped at 9:41 and show a battery level of 100%.

Screen 1: Select Storage

Shows a list of four compatible SSD options:

- Samsung 990 PRO 2TB: NVMe M.2, 7450 MB/s Read, \$169.00
- Samsung 990 PRO 1TB: NVMe M.2, 7450 MB/s Read, \$109.00
- Samsung 980 PRO 2TB: PCIe 4.0, Reliable Choice, \$139.00
- Samsung 870 EVO 4TB: SATA SSD, Mass Storage, \$289.00

Screen 2: Select Power Supply

Shows a list of four compatible power supplies:

- Corsair RM1200x Shift: 1200W, ATX 3.0, Gold, \$219.00
- Corsair RM1000x Shift: 1000W, Side Interface, Gold, \$179.00
- Corsair RM850e: 850W, Low Noise, Gold, \$119.00
- Corsair SF750: 750W, SFX (Small Form Factor), \$169.00

Screen 3: Select CPU Cooler

Shows a list of five compatible liquid coolers:

- NZXT Kraken Elite 360 RGB: LCD Display, 360mm Rad, \$285.00
- Corsair iCUE H150i ELITE LCD: iDS Screen, 360mm Rad, \$249.00
- DeepCool LT720: 360mm, Infinity Mirror Block, \$139.00
- NZXT Kraken 240: 240mm, Compact Display, \$139.00

Bottom Navigation Bar

Each screen features a blue navigation bar at the bottom with the following icons from left to right: Home, Settings, Profile (highlighted in white), Global, and Cart.

9:41 Good Morning

9:41 Good Morning

Select PC Case

HYTE Lian Li

HYTE Y60 (White) Panoramic Glass, Vertical GPU \$ 179.00

HYTE Y70 Touch 4K Integrated Touchscreen \$ 359.00

HYTE Y40 (Black) Compact Mid-Tower \$ 129.00

Build Complete!

Ready to assemble your dream PC.

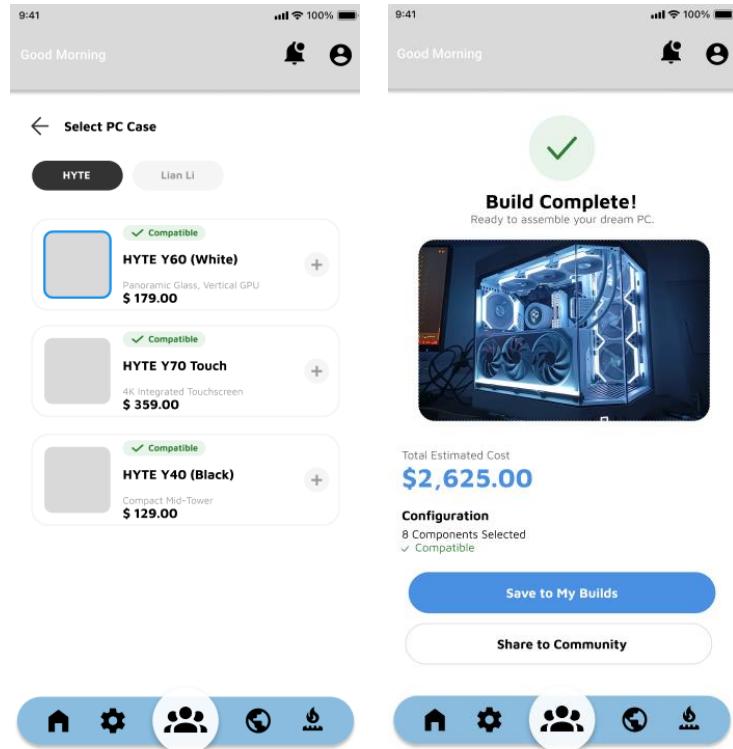
Total Estimated Cost
\$2,625.00

Configuration
8 Components Selected
✓ Compatible

Save to My Builds

Share to Community

Home Settings Profile World Fire



9:41

Good Morning

Community Hub

Trending Newest



Kenji's Liquid Beast
RTX 4090 / i9-14900K



Minimalist Workstation
Ryzen 9 7950X / 64GB RAM / Fractal North Case



← Build Details

Kenji's Liquid Beast

Posted 2 hours ago



Kenji

Description
Dream setup for 4K gaming and 3D rendering.
Temps never go above 60 °C thanks to the 360mm AIO.

Components (8)

Intel Core i9-14900K Processor	\$465
ROG MAXIMUS Z790 Motherboard	\$649
Dominator Titanium 64GB Memory	\$249
ROG Strix RTX 4090 Video Card	\$1,999
Samsung 990 PRO 2TB Storage	\$169
Corsair RM1200x Shift Power Supply	\$219
NZXT Kraken Elite 360 CPU Cooler	\$285
HYTE Y60 White PC Case	\$465

Comments (2)

 **Alex** Wow! Does that GPU actually fit in the Y60?

 **Alex** Yes, but you need the vertical mount included with the case!

Add a comment... **Post**

Designer Based Prototype Evaluation

Stage	User Goal	Touchpoints	User Actions	Opportunities
Home	Explore main features	Builds, build guide, benchmarks, latest posts on the community, build wizard.	Touch on those sections to visit relevant pages to explore the features.	Simple icons and short descriptions
Builds	See the existing builds or create a new build	Created builds and new build FAB	Touch on a build to explore the build or touch on the FAB to create a new build	Display build image and list of parts. Show components inside the new build and show corresponding images and descriptions.
Community	Explore the posts on the community about other user questions and experiences.	Select between trending posts and latest posts, select a post to explore more.	Touch on trending and latest buttons to explore different posts, touch on a post.	Explore different posts about PCs and add comments. Create a new post.
Benchmarks	Analyze system performance, compare different builds, and run new simulations.	“Benchmarks” card (Home), “See Full Score” buttons, Build toggle tabs (My Build 1/2), “Try New Benchmark” button.	Tap on Benchmarks card to view saved build scores. Tap “See Full Score” to view detailed metrics tables. Toggle between builds to compare specs. Tap “Try New Benchmark” to input new specs for testing.	Visualize comparison data with side-by-side charts instead of just switching tabs. Add a “Share Result” feature to post high benchmark scores directly to the Community Hub.
Part Picker Wizard	Get component recommendations based on budget and needs	“Need Help Choosing?” card (Home), Budget input field, Usage selection chips	Input budget and usage, then tap “Find Parts” to enter the Builder	Use user inputs to smartly filter and

	without technical knowledge.	(Gaming/Work/Creative), “Find Parts” button.	Canvas. Tap the CPU slot to view filtered recommendations. Select a CPU (Note: In this prototype, this action simulates completing the rest of the selection process to show the final state).	recommend specific parts for each slot, rather than auto-generating a fixed list. Allow users to pick components one by one with confidence using green “Compatible” badges.
--	------------------------------	--	--	--

User-based Prototype Evaluation

Purpose or Objectives for Prototype Evaluation User Study

The primary goal of this user study was to evaluate the usability, utility, and overall user experience of the BuildMate high-fidelity prototype. Based on the prioritized requirements identified in “Requirements Generated by Designers” and “Synthesis: Final Prioritized Requirements List” part, we established the following specific objectives:

- Assess Usability of Core Features: Determine if users can easily navigate and utilize the five main functional areas: “My Builds”, “Benchmarks”, “Simulation Mode”, “Community Hub”, and “Part Picker Wizard”.
- Measure Information Clarity (FR-6, FR-7): Check if the performance metrics in "Benchmarks" and the detailed component specifications in "My Builds" are easy to interpret and compare for users with varying technical knowledge.
- Evaluate Educational Value (D-2): Assess if the "Simulation Mode" provides clear visual and textual guidance that helps users understand the physical assembly process, addressing the core need for learning.
- Validate the Guided Build Experience (D-1, FR-1, FR-5): Verify if the "Part Picker Wizard" successfully simplify component selection and effectively communicate compatibility status.
- Assess Community Engagement (FR-4): Determine if the "Community Hub" effectively showcases user builds and encourages exploration.

Choice of user study and user sample

- Methodology: We conducted an unmoderated remote usability test combined with an online survey.
 - Procedure: Participants were provided with a link to the interactive Figma prototype and a specific set of 5 Tasks designed to cover the user journey: (1) Viewing Saved Builds, (2) Checking Performance, (3) Learning Assembly via Simulation, (4) Exploring the Community, and (5) Using the Part Picker Wizard.
 - Data Collection: After completing the tasks, participants answered a questionnaire via Google Forms consisting of 1 demographic question, 11 Likert scale questions (Quantitative) and 2 open-ended questions (Qualitative).
- Target Users: The study targeted potential BuildMate users, specifically individuals with an interest in PC building. This aligns with our PACT framework analysis of students, gamers, and hobbyists.
- Sample Size: We recruited 5 participants from our peer group (Douglas College students).
- User Profile: The sample included a mix of “Novice/Beginner” user and “Intermediate” users to ensure the app caters to different levels of technical expertise.
- Perspective: We used a single perspective user study, focusing solely on the end-user experience.

Draft of the User Study Survey

The survey was designed to guide users through the prototype's key workflows before asking for their feedback. It consisted of three main sections:

1. Demographics: Identifying the user's experience level (Novice to Expert).
2. Usability & Feature Evaluation: Rating the clarity, ease of use, and design of features like the "Part Picker Wizard," "Community Hub," and "Simulation Mode" on a scale of 1 to 5.
3. Detailed Feedback: Identifying the most helpful features, specific difficulties encountered, and missing functionality.

(Note: The full draft of the survey questions and task instructions is attached in the Appendix.)

Data Visualization and Analysis

Five people in all answered the prototype evaluation survey. Despite the small sample size, the data still shows trends that may be used to enhance the prototype.

1. Quantitative Analysis

User Experience Level

Experience Level	Count
Novice	2
Beginner	2
Intermediate	1
Expert	0

80% of participants are either novice or beginner.

This aligns with our previous survey (62% novice/beginner), confirming BuildMate must prioritize:

- Guided onboarding
- Clear visual cues
- Reduced jargon
- Strong compatibility explanations

Usability Ratings

1. Clarity of Component Details

Mean: 4.0

Median: 4

Mode: 4

Users understand where to find specs, but some want deeper detail (graphs, comparisons).

2. Ease of Adding Components to Build

Mean: 4.0

Median: 4

Mode: 4

Flow is generally good, but feedback later shows some confusion about small details.

3. Recommendation for Others

Mean: 4.2

Median: 4

Mode: 4

Strong satisfaction overall.

Only minor friction points identified.

2. *Qualitative Analysis*

A. “What did you find confusing or unclear?”

- Visibility issues - Buttons not immediately noticeable (e.g., “See Full Score”)
- Relevance issues - One user said “Wanna Build?” section felt irrelevant
- Component selection clarity - Some users wanted more distinction between “select” and “view details”

B. “What is missing from the app?”

- Price comparison and cost visibility - Users want part price information, Total build cost and Cost of other users shared builds
- Deeper specification visualizations - Graph-based spec comparison, Performance/component trends
- Link to purchase components - Integration with retailers (Amazon, Newegg, Canada Computers)
- Improved navigation clarity- Slight improvements needed for first-time clarity

3. *Behavioral Interpretation*

Based on both quantitative and qualitative data:

User Motivation

- Users want guidance but still want control.
- They enjoy seeing statistical/performance feedback (FPS, score breakdown).
- They are cost-conscious budget tracking is critical.

User Pain Points

- Difficulty identifying actions on first use.
- Missing pricing information.
- Need for better visualization for specs and comparisons.

User Expectations

- More interactivity
- Cleaner navigation flow
- Integrated shopping experience
- A community of shared builds they can explore deeply

4. *Insights from Analysis*

- Users were generally satisfied with usability, with most features scoring 4+ out of 5.
- Novices and beginners made up 80% of testers, confirming the need for a guided, visual-first interface.
- Users liked the performance scoring system (mean: 4.4), showing strong acceptance of BuildMate's simulation concept.
- The My Builds page was highly rated (mean: 4.4), confirming the clarity of the build-saving feature.
- Several users struggled briefly with button discoverability, especially "See Full Score".
- Users strongly requested price tracking and comparison, which is currently missing.
- Some users want graph-based component comparisons, indicating a desire for more technical depth.
- One user felt some sections (like "Wanna Build?") were unnecessary.
- Users want the ability to purchase components directly, confirming demand for retailer integration.

Changes to the design based on Prototype Evaluation

Needed Changes

- Navigation & Wayfinding
 - Fix Broken Links: Multiple users reported getting stuck on specific pages with no way to return to the home screen.
 - Persistent Navigation: Users requested a consistent bottom menu bar across all screens to prevent disorientation.
 - Home Button Functionality: One user explicitly mentioned the home button didn't work properly in some instances.
- Visual Accessibility & Clarity:
 - Font Size: Three out of five participants (Novice to Intermediate) complained that the text size was too small to read comfortably.
 - Icon Clarity: Some icons were confusing
 - Button Visibility: Call-to-action buttons like "See Full Scores" were not immediately noticeable to some users.
- Home Screen Hierarchy:
 - "Wanna Build?" Confusion: Users found this section title misleading or irrelevant.
- Missing Features (Requests):
 - Cost Visibility in Community: Users found it difficult to judge the value of community builds without seeing the total estimated cost directly on the details page.
 - Retailer Integration: Several users requested real-time pricing and direct purchase links to retailers, noting the lack of "buying options" as a missing feature.
 - Visual Spec Comparisons: Requests for graph-based visualization for specs instead of just text/tables.

Changes Made

- Optimized Navigation Structure: We implemented a persistent bottom navigation bar on all primary workflow screens to ensure users can easily switch contexts. However, for deep-level specification screens (component specs and full benchmark details), we deliberately maximized screen real estate for readability by omitting the bottom bar, relying on the top "Back" button for navigation.
- Fixed Broken Interaction Links: Based on user reports of getting "stuck", we systematically reviewed and repaired disconnected interactions, specifically ensuring the "Home" icon on the bottom navigation bar correctly routes users back to the Home Screen from the Part Picker Wizard and Component Selection sub-screens.
- Enhanced Cost Visibility: In response to user feedback requesting price transparency, we added a "Total Estimated Price" display to the Build Details screen in the Community Hub. This allows users to immediately assess if a community build fits their budget without needing to calculate component costs manually.

Future Changes

- System-Wide Dynamic Text Scaling: While some users noted that text size was small, manually enlarging fonts on individual screens would break the UI layout and consistency. A proper solution requires implementing a dynamic type system that automatically scales text across all screens while preserving the layout structure. This is a significant development task scheduled for the next iteration.
- Real-Time Retailer Integration: Users requested direct purchase links and live pricing from retailers. This requires complex backend APIs and business partnerships, which are beyond the scope of a UX prototype.
- Visual Spec Comparisons: Users requested graph-based visualizations for comparing component specs. This would require a significant redesign of the data visualization engine to dynamically generate charts based on selected parts.
- UI Clarity & Labeling improvements: Feedback indicated confusion regarding the “Wanna Build” label and certain icons. Future iterations will involve renaming the simulation entry point to clarify its purpose and redesigning icon sets to be more universally recognizable to improve visual clarity.
- Visual Hierarchy Refinement: To address issues with button visibility (e.g., “See Full Scores”), we plan to refine the color palette and contrast of secondary call-to-action buttons to ensure they stand out more effectively.

AI Usage

This section outlines the AI tools used to support the development of the BuildMate prototype and the Final Report. It details the specific purpose of each tool and highlights how the team added value beyond the AI outputs.

AI Tool Name	Version, Account Type	Specific feature for which the AI tool was used
ChatGPT	GPT-5 / Free	Brainstorming novel app ideas, Drafting key proposal sections, refining wording for grammar and clarity.
Gemini	Free Account	UI Design Support: Suggesting specific Hex color codes (light blue/gray) for buttons and chips to match the existing design system. Content Generation: Creating realistic placeholder titles, descriptions, and component lists for “Community Hub” posts. Technical Troubleshooting: Providing instructions on how to fix “sticky” bottom navigation bars in Figma prototyping. Asset Creation: Generating SVG code for specific UI icons (e.g., Back arrow). Report Writing: Checking grammar and modifying sentences for the Final Report.

Value Addition

While AI tools accelerated the prototyping process by providing raw assets and technical solutions, the design decisions and final implementation were entirely human-driven.

- Design Consistency: AI suggested colour codes, but we manually tested and adjusted them to ensure they perfectly matched the existing colour palette established by the team, maintaining visual consistency across the app.
- Contextual Relevance: AI-generated generic community posts, but we curated and edited the content to ensure it aligned with our specific personas (e.g., ensuring “Kenji’s Liquid Beast” listed high-end specs appropriate for an expert).
- Technical Implementation: AI explained how to fix the navigation bar in Figma, but we manually applied the fix to each frame, adjusted layer hierarchies, and verified the scrolling behaviour through user testing.
- Critical Review: All AI-refined text for the report was reviewed to ensure it accurately reflected our actual work and project outcomes.

Work Date/Hours

Student: Eranda

Date	Number of Hours	Description
Nov 17, 2025	4	
Nov 18, 2025	1	
Nov 19, 2025	1	
Nov 20, 2025	5	Continue on Figma
Nov 23, 2025	2	Continue on Figma and Started writing the final Report
Nov 24, 2025	1	
Nov 25, 2025	1	Continue on Figma
Nov 26, 2025	2	Work on the report
Nov 27, 2025	2	Work on the report and finalized everything

Student: Ruon

Date	Number of Hours	Description

Nov 20, 2025	3.5	Create Part Picker Wizard and Community Hub.
Nov 21, 2025	7	Create Builder Canvas and Select Component under Part Picker Wizard.
Nov 23, 2025	1	Create Build Details under Community Hub.
Nov 24, 2025	6	Create survey questions with tasks, and refine Part Picker Wizard and Community Hub.
Nov 25, 2025	3	Refine survey questions and send an email to the professor to ask feedback.
Nov 26, 2025	3	Work on the report and ask peers to answer the survey.
Nov 27, 2025	3	Work on the report and modify layouts based on the feedback from the survey.

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- NZXT. (n.d.). NZXT BLD [Online service]. NZXT. Retrieved October 5, 2025, from <https://www.nzxt.com/bld>
- PCPartPicker. (n.d.). PCPartPicker [Database of PC components]. PCPartPicker. Retrieved October 5, 2025, from <https://pcpartpicker.com/>

Appendix A

Prototype Installation & Access Instructions

This project is a high-fidelity prototype designed in Figma. No code compilation is required.

Option 1: View Online (Recommended) You can access the interactive prototype directly using the following link:

https://www.figma.com/proto/MEDKa68gzZOSTpqb9wFfEl/F25_3375_S4_G5_BuildMate?node-id=7-6&t=cABgwtO9N6fjesjB-1

Option 2: Use Repository Files (Backup) If the online link does not work, a backup file is available in the GitHub repository:

1. Download the file ‘F25_3375_S4_G5_BuildMate.fig’ from the ‘Misc’ folder.
2. Go to <https://www.figma.com/> and log in.
3. Click “Import file” and select the downloaded ‘.fig’ file to view the design and prototype.

Appendix B

Draft of the User Study 2 Survey

Thank you for participating in this usability test. BuildMate is a mobile application designed to make PC building accessible, engaging, and educational for everyone.

This survey is part of the CSIS 3375 – UX Design in Web and Mobile Applications course at Douglas College. All data collected will be used solely for academic purposes and prototype evaluation.

Instructions: Please open the interactive prototype link below. Imagine you are a user interested in building a PC, and complete the following 4 Tasks.

Prototype Link:

https://www.figma.com/proto/MEDKa68gzZOSTpqb9wFfEl/F25_3375_S4_G5_BuildMate?node-id=7-2&t=RNJXzlJvvDuWEgWw-1

Please complete these 5 tasks in the prototype:

Task 1: View Saved Builds (My Builds)

- On the Home Screen, tap the card labeled "My Build 1".
- Scroll through the component list to check the detailed specifications of the parts.

Task 2: Check Performance (Benchmarks)

- From the "My Build 1" screen, tap "Benchmark My Build" (or tap the "Benchmarks" card on the Home Screen) .
- Review the performance scores and compare "My Build 1" vs "My Build 2".

Task 3: Learn Assembly (Simulation)

- Go back to the Home Screen.
- Tap the card labeled "Wanna Build?" (featuring the RGB fans).
- Briefly look through the "PC Assembly – Step-by-Step" guide.
- Scroll to the bottom and tap the "Go to Simulator" button to view the interactive simulation screen.

Task 4: Explore Community (Community Hub)

- Go back to the Home Screen.
- Tap the first image under "Latest on the Community" to view the details of "Kenji's Liquid Beast".

Task 5: Get Part Recommendations (Part Picker Wizard)

- Go back to the Home Screen.
- Scroll to the bottom and tap the card labeled "Need Help Choosing?".
- Use the Part Picker Wizard to select a budget and usage.
- Tap "Processor" to select a CPU. (Note: The Wizard will automatically fill in the rest of the compatible parts in this prototype.)
- Tap "FINISH BUILD" to see the result.

Once you have explored these features, please answer the questions below.

Survey Questions

1. Which of the following best describes your experience level with building or upgrading a Personal Computer (PC)?
 - Novice (I have little to no technical knowledge and have never built one)
 - Beginner (I have some knowledge but need guidance)
 - Intermediate (I have successfully built/upgraded 1-2 PCs)
 - Expert (I am very comfortable building and troubleshooting multiple PCs)

Usability & Feature Evaluation

Please rate your level of agreement with the following statements based on your experience with the prototype. (1 = Strongly Disagree, 5 = Strongly Agree)

2. The "My Builds" list clearly displayed my saved configurations. (1-2-3-4-5)
3. It was easy to check the detailed specifications of the components in "My Builds". (1-2-3-4-5)
4. The performance metrics and tables in "Benchmarks" helped me understand the PC's performance. (1-2-3-4-5)
5. Comparing the performance scores between different builds in "Benchmarks" was helpful. (1-2-3-4-5)
6. I could follow the text instructions in the "Simulation Mode" without confusion. (1-2-3-4-5)
7. The images in "Simulation Mode" made the assembly steps easier to visualize. (1-2-3-4-5)
8. The "Community Hub" provided helpful examples of PC builds. (1-2-3-4-5)
9. The "Part Picker Wizard" made it easy to select a budget and compatible components. (1-2-3-4-5)
10. The green "Compatible" badges helped me confirm the parts would work together. (1-2-3-4-5)
11. I could navigate between the Home screen and different tools without getting lost. (1-2-3-4-5)
12. The visual design (UI) felt consistent throughout the app. (1-2-3-4-5)

Detailed Feedback

13. Did you encounter any difficulties, or rate any items low (1 or 2)? Please explain why.
14. What is currently MISSING from the app that would make it better for you?

Appendix C

Prompt History

- “I am designing Part Picker Wizard for PC building app. I need a modern color that fits a clean, tech-focused aesthetic. Can you suggest specific Hex color codes for light blue (for active selection chips) and neutral gray (for inactive buttons) that would work well together on a white background?”
- “Generate 3 realistic examples of user posts for Community Hub. For each post, provide catchy title, short description, and list of high-end PC components (CPU, Motherboard, Memory, Video Card, Storage, Power supply, CPU Cooler, PC Case) with their real costs”
- I’m using Figma. How can I make the bottom navigation bar stay fixed.
- Create SVG code for a simple, modern back arrow icon that I can copy and paste directly into Figma.
- Check the text in this file for grammar and clarity. Also modify the sentences to sound more professional and academic.

ChatGPT	Saved memory full	Share
Purpose of BuildMate	BuildMate is made to fix these problems by giving users a visual and easy way to build or upgrade their PCs. It lets users drag and drop parts and gives instant checks for compatibility, performance, and suggestions for upgrades. It can also show results like system efficiency or game performance based on parts. Another cool feature is the AR view, so users can see how the PC will look on their desk. All together BuildMate makes the building process simple, interesting, and fun to learn.	
Significance	BuildMate is important because it helps people who are not very technical to learn and build their own PCs. It gives confidence to beginners and also helps experienced users who want better performance and information when building. Instead of just reading specs like other websites, users can build like playing with LEGO blocks and see the results. This makes the whole PC building process more creative, educational, and open for everyone.	
Background	Building or upgrading a personal computer (PC) has traditionally been something only tech enthusiasts or experienced users enjoy doing. It requires a deep understanding of component compatibility, power requirements, and performance metrics, which can be confusing for beginners. Choosing the wrong power supply or motherboard can quickly lead to frustration, wasted time, and unnecessary costs. Most of the resources available today are overly technical and text-heavy, making it difficult for average users to follow, even though interest in building custom PCs is growing.	please fix grammar and make this well
Purpose of BuildMate	BuildMate is designed to address these challenges by providing users with a visual and intuitive way to build or upgrade their PCs. It allows users to drag and drop components while offering instant compatibility checks, performance insights, and upgrade suggestions. The system can also simulate outcomes such as overall efficiency or expected gaming performance based on selected parts. Additionally, the AR view feature lets users visualize how their PC setup would look on their desk. Altogether, BuildMate makes the PC building process simple, engaging, and educational.	
Significance	BuildMate is significant because it empowers people without technical backgrounds to confidently learn and build their own PCs. It fosters both creativity and understanding for beginners while also providing experienced users with valuable performance-based insights. Unlike traditional websites that focus only on specifications, BuildMate offers a hands-on, interactive experience—much like building with LEGO blocks. This makes the entire PC building journey more enjoyable, informative, and accessible to everyone.	

I want to create a git repo for this project to share files and other stuff. I need a description to add to the repor. CSIS 3375 – UX Design in Web and Mobile Applications this is the course.

Here's a clean and professional [GitHub repository description](#) you can use for your project:

BuildMate – CSIS 3375: UX Design in Web and Mobile Applications

A prototype design project focused on creating an interactive and educational PC assembly experience. BuildMate allows users to virtually build, upgrade, and visualize custom PCs through an intuitive and engaging interface. This repository contains project files, research documents, and design assets developed for the UX Design in Web and Mobile Applications course at Douglas College.

Would you like me to also give you a [README.md](#) layout for this repo (with sections like overview, features, tools used, and contributors)? It'll make your repo look polished and professional.



README File – Oct 5, 11:59 PM: Readme file is created in the repo. It outlines the course, section number, group number, app name, student names, student ids and email ids for the project. This must be created at the time the GitHub Repo is created, and must be updated periodically as needed.

Here's a clean and professional **README.md** template you can use for your GitHub repo to meet that requirement:

CSIS 3375 – UX Design in Web and Mobile Applications

Section: [Enter Section Number]

Group Number: [Enter Group Number]

Project Title

App Name: BuildMate

Project Description

BuildMate is a UX prototype project focused on designing an interactive PC assembly and upgrade experience. The project aims to simplify PC building for users through intuitive design and engaging user interaction.

Team Members

Name	Student ID	Email
Eranda Jayawardena	[Enter ID]	[Enter Email]
[Member 2 Name]	[Enter ID]	[Enter Email]
[Member 3 Name]	[Enter ID]	[Enter Email]

Repository Overview

This repository includes:

- Project proposal and research documents
- UI/UX design files and prototypes
- Meeting notes and progress updates

Last Updated

October 5, 2025

BuildMate.

3. MSI Mystic Light / ASUS Armoury Crate (ecosystem tools)

- Apps that allow customization of RGB lighting and, in the case of Armoury Crate, hardware monitoring.
- Useful post-purchase personalization but not for planning or learning.
- Unlike BuildMate, they focus only on customization after buying components.

Market Inspirations

1. LEGO Digital Designer

- Provides a playful, drag-and-drop building experience for LEGO sets.
- Its intuitive and creative approach inspires BuildMate's visual and interactive design philosophy.

2. IKEA Place (AR app)

- Lets users preview furniture in their home using AR.
- Inspires BuildMate's AR preview feature, allowing users to visualize PC cases in real-world contexts.

3. Canva

- A design platform accessible for beginners while offering advanced tools for experts.
- BuildMate adopts a similar philosophy: simple for novices, valuable for enthusiasts.

please give me references to these sites with APA

Here are sample APA-style references for those apps/websites you listed. You might need to adjust based on exact versions or publication dates you have.

References

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If you want, I can format these in **your proposal's reference list** exactly in APA7 style, with hanging indents etc. Do you want me to integrate these into your proposal's References section?

AI Use Section give a small description to this too

Here's a concise and professional description you can use for the AI Use Section:

AI Use Section

The AI Use Section highlights the tools employed during the design and development of the BuildMate prototype. It documents the specific AI platforms, their versions, and account types, as well as the exact purpose for which they were used. This section ensures transparency in the design process and distinguishes between AI-generated contributions and the value added by the team. It also reflects how AI served as a supportive tool to enhance creativity, efficiency, and innovation in the project.

👉 Do you want me to also prepare a **sample table format** for the AI tools (like ChatGPT, Figma AI plugins, MidJourney, etc.) in APA style, so you can just fill it in later?

∅ ⏪ ⏴ ⏵ ⏷ ⏸ ⏹

please

Absolutely ✅ Here's a **sample AI tools table** formatted professionally for APA 7 style that you can include under the **AI Use Section**:

Table 1
AI Tools Used in BuildMate Prototype

AI Tool Name	Version / Account Type	Specific Use Case
ChatGPT (GPT-5)	Free	Assisted in drafting proposal text, refining descriptions, and brainstorming features.
DALL-E	Free Trial	Created app logo and visual mockups for prototype screens.
Figma AI Plugin	Starter / Free	Generated design suggestions and refined UI/UX elements in wireframes.

Note: The team further refined all AI-generated outputs by adding realistic, feasible design adjustments, ensuring that the final prototype aligns with user needs and project objectives.

If you want, I can also **write the "Value Addition" paragraph** for this section so it's ready and professional. This would explain how your team added creative and practical input beyond what AI produced. Do you want me to do that?

∅ ⏪ ⏴ ⏵ ⏷ ⏸ ⏹

how should i format headings. titles, in word. i need this in a professional way with APA7

Great question! If you're submitting this as a **formal academic/professional proposal** in Word (APA 7th edition style), you'll want a clean structure with APA-style formatting for headings, fonts, and references.

Here's how you should format everything:

General Formatting (APA 7)

- **Font:** Times New Roman 12pt (or Calibri 11pt, Arial 11pt are also APA-accepted).
- **Line spacing:** Double-spaced throughout (except tables).
- **Margins:** 1 inch on all sides.
- **Alignment:** Left-aligned (no full justification).
- **Page numbers:** Top right corner, starting on the title page.

Title Page (APA 7 Student Paper Style)

- **Centered, Bold Title** (title case → major words capitalized)
- One line description under title (italicized)
- Names and Student IDs (centered, double-spaced)
- Course Name and Section (centered)
- Instructor's Name (if required)
- Date (centered)

Example (centered, double-spaced):

BuildMate: PC Assembly & Upgrade Experience

Build your dream PC with ease – compatibility, performance, and design made visual

Eranda Jayawardena (12345678)

Student Name 2 (87654321)

Student Name 3 (11223344)

Course: CIS XXXX – Section XX

Instructor: [Name]

Team Lead: Eranda Jayawardena

Date: February 10, 2025

Headings (APA 7 Style)

APA has **five levels of headings**. For your proposal, you'll mostly need **Level 1** and **Level 2**.

- **Level 1 Heading:** Centered, Bold, Title Case
Example: **Introduction**
- **Level 2 Heading:** Left-aligned, Bold, Title Case
Example: **Novelty of the App**
- **Level 3 Heading:** Left-aligned, Bold Italic, Title Case (only if needed for sub-sub sections).

Example Formatting for Your Proposal

Introduction (Level 1 – Centered, Bold)

Describe the app. How is it novel? What is the transformative experience?

Background Research (Level 1 – Centered, ↴)