

CONSENSIA

User Manual

AI-Powered Multi-Persona Debate & Decision Support for Software Engineering

CS492 Senior Design Project · Team T2526 · Bilkent University · 2026

Amirhossein Ahani · Ahmed Hatem Haikal · İrfan Hakan Karakoç · Mehmet Hakan Yavuz · Türker Köken

1. Introduction

Consensia is a web-based platform that lets you run structured, multi-persona AI debates on technical questions. Instead of receiving a single AI answer, you define a council of expert personas — each with a distinct background and reasoning style — and have them debate your question from their own perspectives. A separate judge model then synthesizes all arguments into a transparent, traceable consensus.

This manual covers everything you need to get started: creating an account, building personas, running debates, understanding judge output, and managing your account settings.

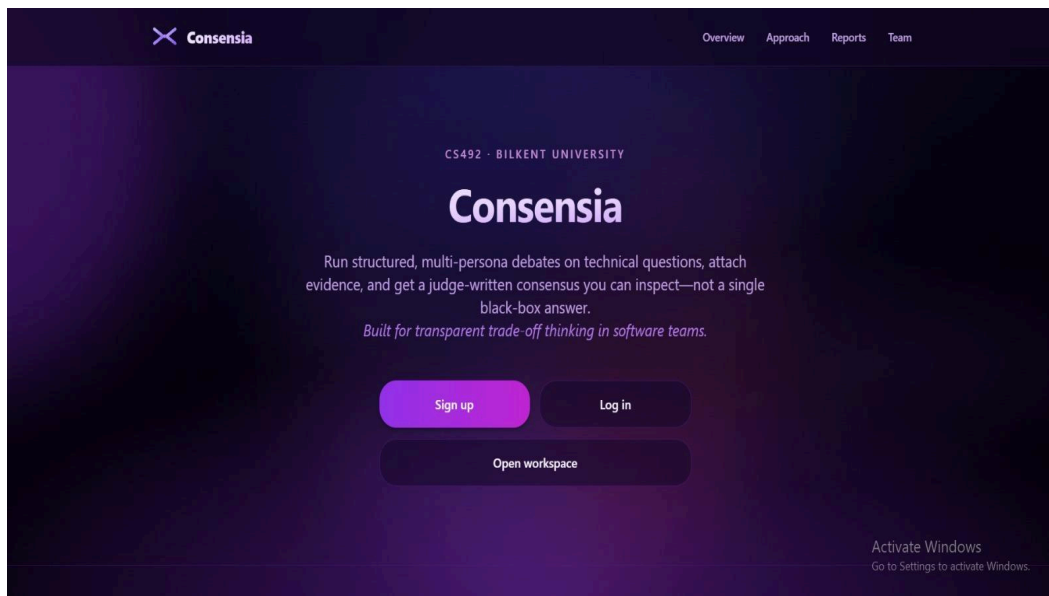


Figure 1 – Consensia landing page

Approach

Serious software choices—architecture, implementation, testing, security, scalability, usability, cost—usually mean **trade-offs**, not a single “right” answer. In real teams, people with different roles argue it out, but those conversations are **slow**, ad hoc, and hard to replay in a structured way. A lone chatbot reply can hide assumptions and bury alternatives. Consensia is built to make AI-assisted decisions more **transparent and inspectable**: you see competing lines of reasoning before accepting a recommendation.

In practice, you assemble a **council** of personas—defaults you can edit, profiles from a **CV**, or grounded **researcher-style** personas from publication data. Each persona answers in parallel; you can run **multi-round** debates so later rounds see the prior transcript. A **Judge** model produces a consensus with explicit summary and reasoning. **Two-pass calibration** scores topic relevance and argument quality so the judge weights stronger, on-topic contributions. Attach **PDFs, DOCX, or images** as evidence; signed-in users get **saved sessions** with history and a rolling context window for follow-ups.

Debate & consensus

Parallel persona calls per round, optional multi-round rebuttals, then a judge synthesis with summary and reasoning—so you can compare viewpoints instead of trusting one opaque answer.

Personas & evidence

Manual personas and curated defaults, CV-driven generation, researcher-backed profiles, favorites, and file attachments so answers stay tied to the material you provide.

Platform & delivery

React, TypeScript, and **Vite** on the frontend; **FastAPI** and **PostgreSQL** on the backend; configurable LLM providers; **Docker Compose** for a consistent dev stack. Accounts, email verification, daily quotas, and an admin stats view round out the product surface.

Activate Windows
Go to Settings to activate Windows.

Figure 2 – Approach and key features overview

2. Getting Started

2.1 Creating an Account

To access the full workspace and save your debate history, you need a registered account.

1. Navigate to the Consensia homepage and click Sign up.
2. Fill in your Full Name and Email address. Institution / Company is optional.
3. Choose a password (at least 6 characters) and confirm it.
4. Click Sign Up. A verification email will be sent to your inbox.
5. Open the email and enter the 6-digit verification code when prompted.
6. Once verified, you will be redirected to the debate workspace.

Figure 3 – Registration page

Note: You can also use the Open workspace button on the landing page to access a guest workspace without registering, but your debates will not be saved.

2.2 Logging In

If you already have an account, click Log in from the homepage. Enter your email and password, then click Log In. Use Forgot password? if you need to reset your credentials.

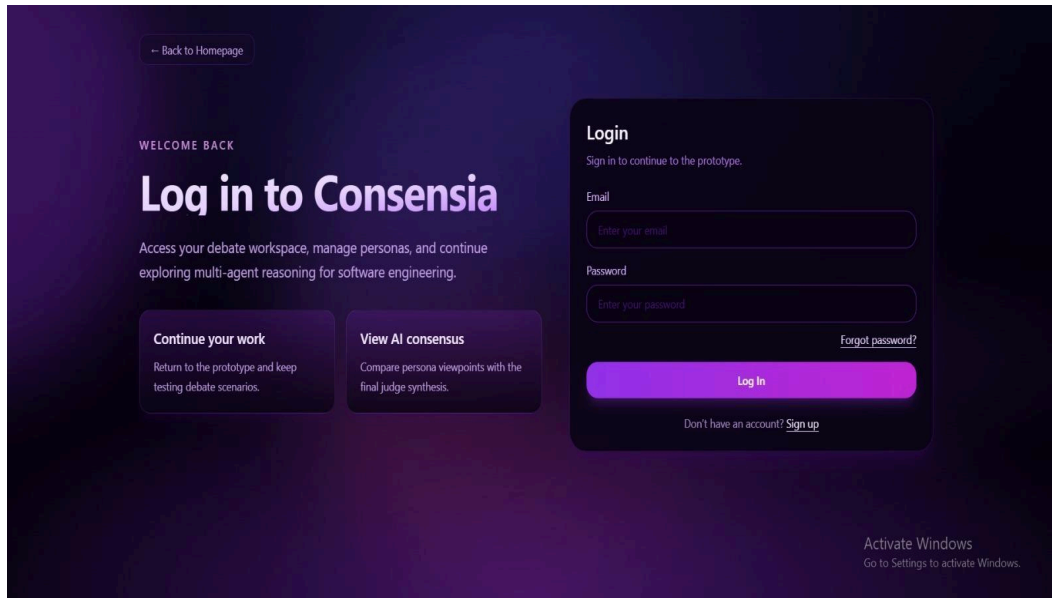


Figure 4 – Login page

3. The Debate Workspace

After logging in, you land on the main workspace. This is where all debates happen. The workspace has three main areas:

- Session sidebar (left) – lists your saved past debates and lets you start a new one.
- Debate composer (center top) – the text input where you type your question and attach files.
- Debaters panel (center) – shows your active personas. Expand it to manage who is in the debate.

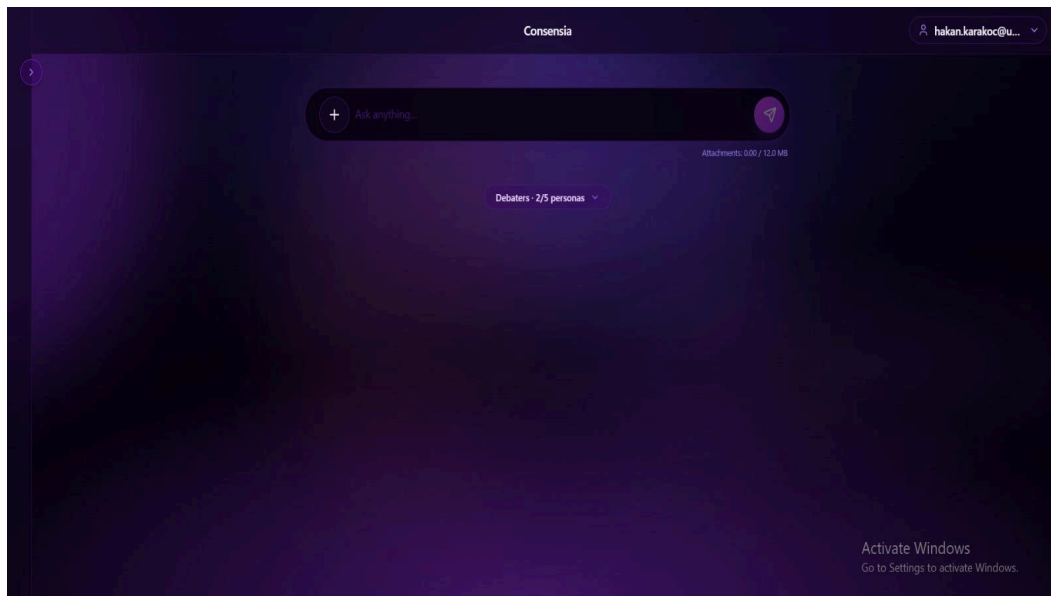


Figure 5 – Empty workspace ready for a new debate

4. Managing Personas

A persona is an AI expert character who will participate in the debate from a specific point of view. You can have up to 5 active personas per debate. Click the Debaters button to open the persona panel.

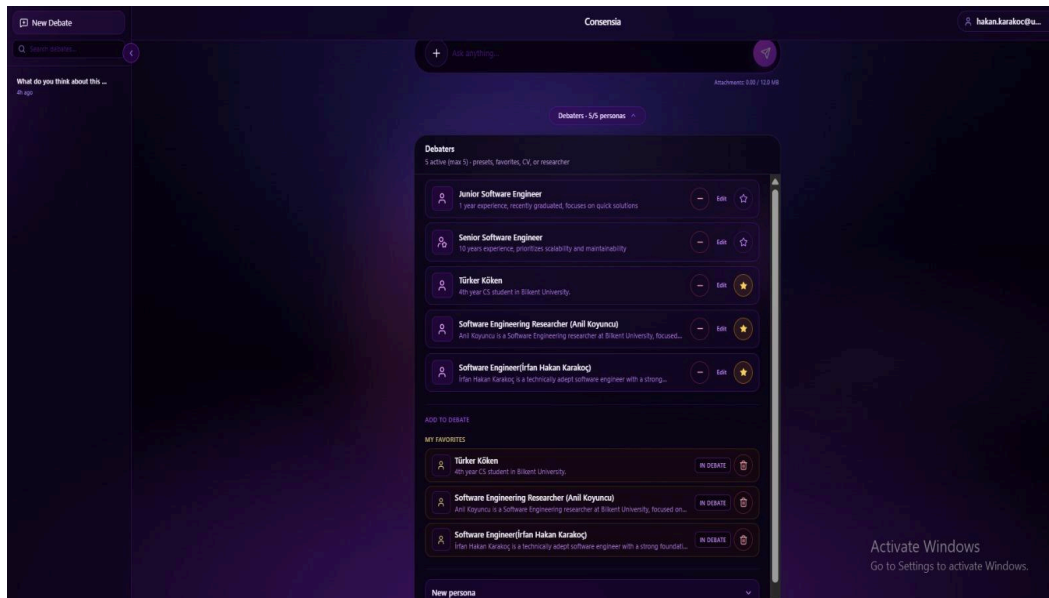


Figure 6 – Debaters panel showing 5 active personas and saved favorites

4.1 Default Presets

Two default personas are pre-loaded when you open a new debate: Junior Software Engineer and Senior Software Engineer. You can edit their names and descriptions or remove them entirely.

4.2 Creating a Manual Persona

To define a persona from scratch:

7. In the Debaters panel, scroll down to the New persona section.
8. Make sure the Manual tab is selected.
9. Pick an icon, enter a Name, and write a Description that captures the persona's background, expertise, and perspective.
10. Click Add to debate.

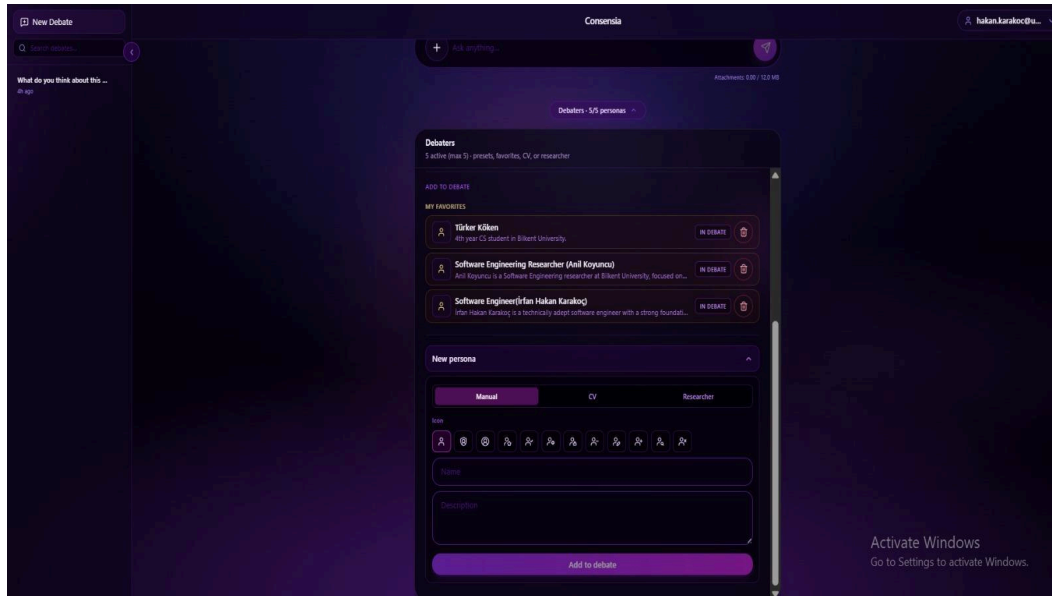


Figure 7 – Creating a persona manually

4.3 Creating a Persona from a CV

You can generate a persona automatically from a PDF or Word document (such as a CV or resume):

11. Select the CV tab in the New persona section.
12. Click Choose file and upload a PDF or DOCX file.
13. Consensia extracts the content and builds a persona based on the document.

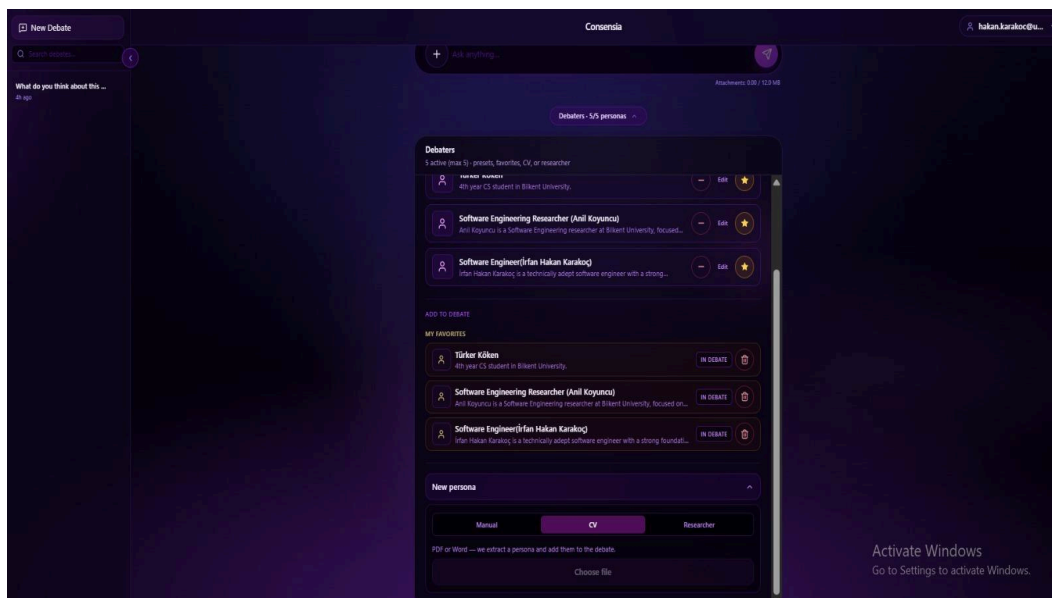


Figure 8 – Creating a persona from a CV or Word document

4.4 Creating a Researcher Persona

Researcher personas are grounded in real academic profiles scraped from Google Scholar:

14. Select the Researcher tab in the New persona section.
15. Type the researcher's name (e.g., Steffen Herbold) and click Search & add.
16. Consensia searches Google Scholar, retrieves the researcher's profile including publications and research areas, and generates a persona.

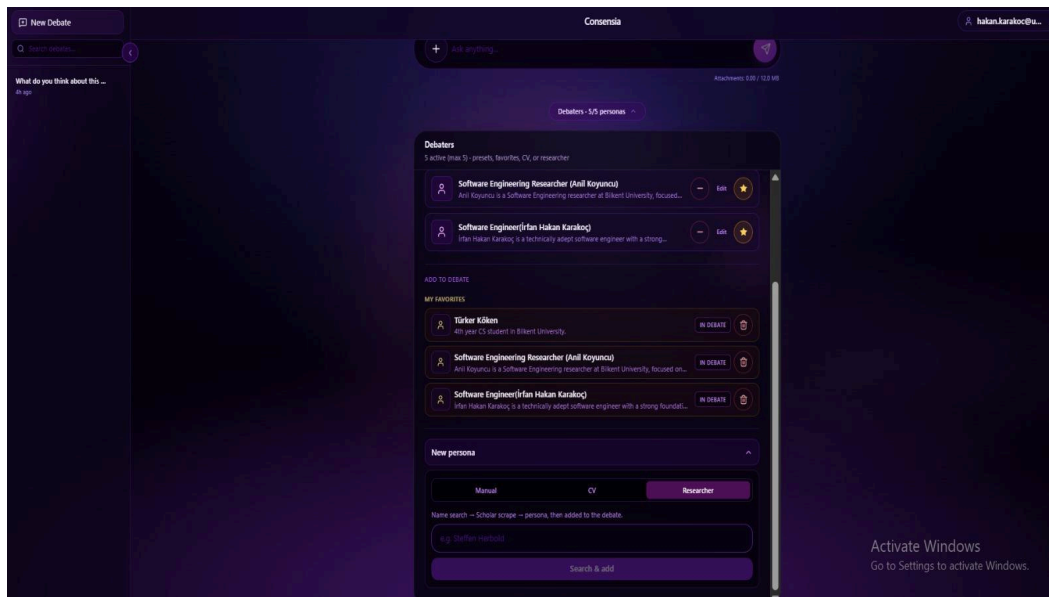


Figure 9 – Creating a persona from a Google Scholar researcher profile

4.5 Saving Favorite Personas

Click the star icon next to any active persona to save it to your favorites. Saved personas appear in the My Favorites section at the bottom of the Debaters panel. You can re-add them to any future debate in one click.

4.6 Editing and Removing Personas

Click Edit next to any persona to modify its name or description. Click the minus (–) button to remove a persona from the current debate. You can have between 1 and 5 active personas.

5. Running a Debate

5.1 Asking a Question

Type your question into the Ask anything... input at the top of the workspace. Questions can be as short or as detailed as you like. For best results, be specific about what kind of feedback or decision you need.

Example Questions

"What do you think about this UML diagram? Is it correct?" "Should we use a microservices or monolithic architecture for a startup product?" "Review this API design and flag any security or scalability issues."

5.2 Attaching Files

You can attach evidence to your question by clicking the + button next to the input field. Supported formats:

- Images (JPG, PNG) – passed directly to the LLM's vision model.
- PDF documents – text is extracted and injected as context.
- DOCX files – text is extracted and injected as context.

The attachment total limit is 12 MB per debate message, shown as Attachments: X.XX / 12.0 MB below the input.

5.3 Submitting and Round 1

Once your question is ready (and files are attached if needed), click the send button (purple arrow). All active personas respond simultaneously in Round 1. Each response card shows:

- The persona's name and description.
- Their full argument or review in their own voice and expertise style.

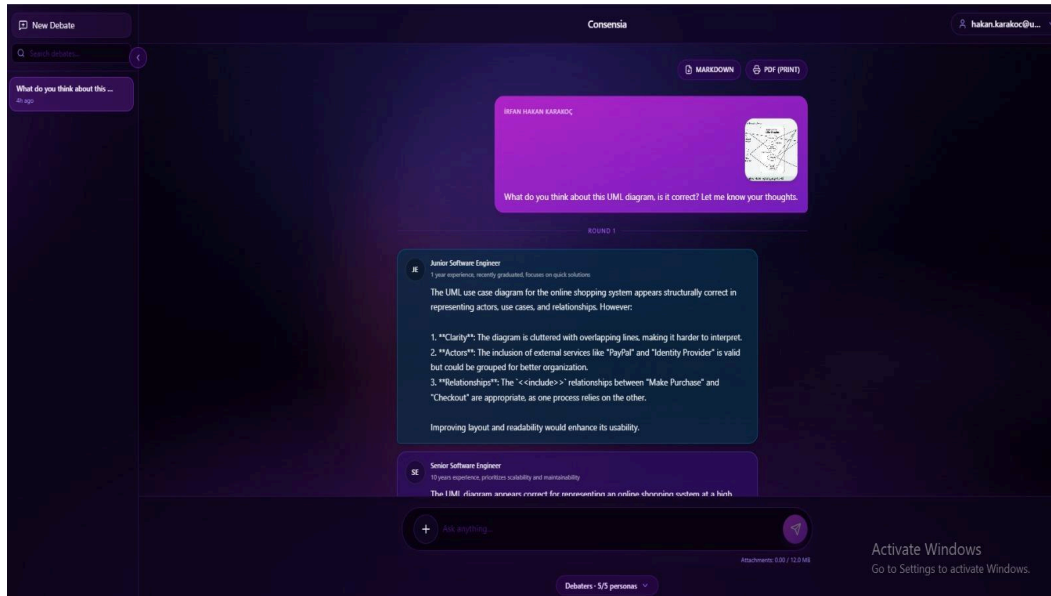


Figure 10 – Round 1 – personas responding to an attached UML diagram

5.4 Multi-Round Debates

After Round 1 completes, you can ask a follow-up question in the same debate. In subsequent rounds each persona sees the previous round's full transcript and can respond to what others said, creating a genuine back-and-forth debate.

Up to 3 rounds are supported per debate submission. Each follow-up question starts a new round automatically.

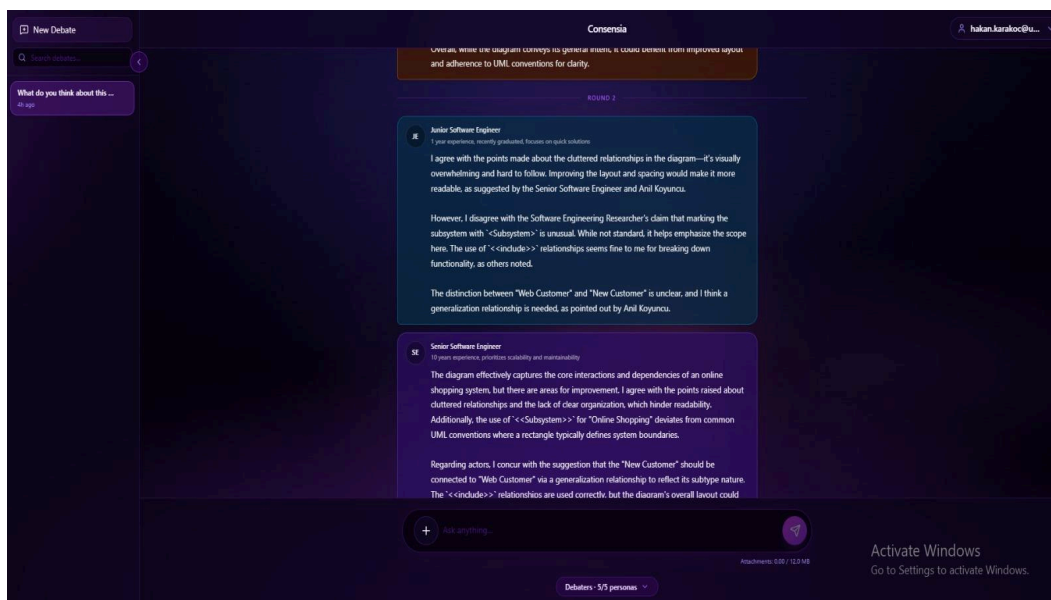


Figure 11 – Round 2 – personas referencing each other's Round 1 arguments

6. The Judge and Consensus

After all personas have responded in the final round, a separate Judge model reads all of their arguments and produces a consensus. The judge output appears below the persona cards and contains two sections:

- Summary – the synthesized consensus answer, referencing key points from the debate.
- Reasoning – an explanation of how the judge weighted each persona's contribution.

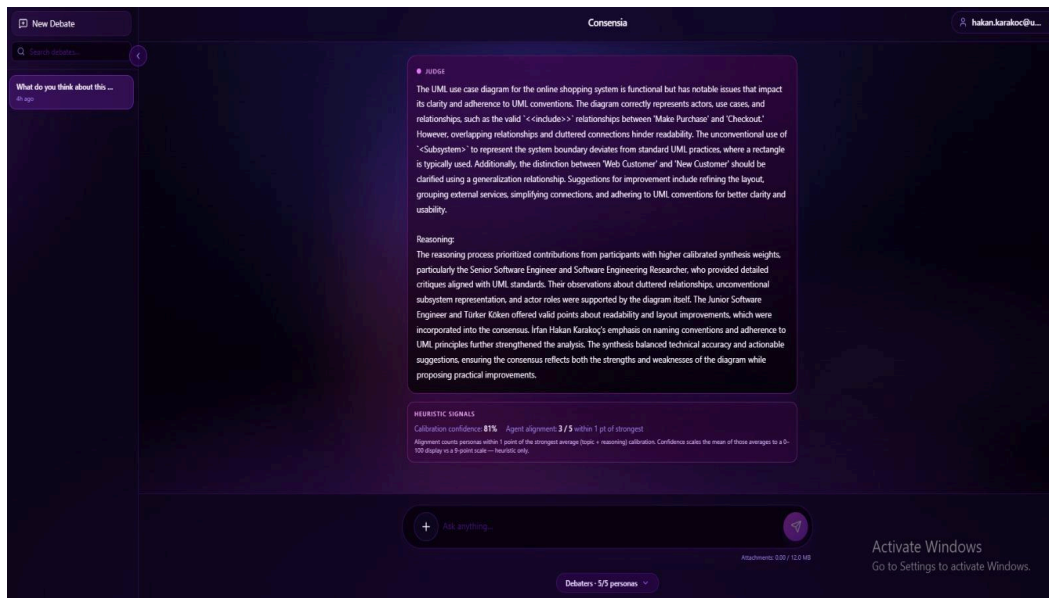


Figure 12 – Judge output with summary, reasoning, and heuristic signals

6.1 Two-Pass QA Calibration

Before and after the debate, Consensia runs an automatic quality assessment to help the judge weigh contributions fairly:

- Topic Relevance Score (0–9) – how well the question matches each persona's domain expertise.
- Reasoning Quality Score (0–9) – how strong each persona's argument is.

These two scores are multiplied to produce a normalized calibration weight per persona. The judge uses these weights to give more influence to the most relevant and highest-quality contributors.

6.2 Heuristic Signals Banner

Below the judge output you will see a Heuristic Signals section showing:

- Calibration confidence (0–100%) – a heuristic measure of how aligned the personas' calibration scores are.
- Agent alignment – how many personas scored within 1 point of the strongest calibration.

Note: Heuristic signals are informational only. A lower confidence score means the personas had very different expertise levels relative to the question, not that the consensus is wrong.

6.3 Exporting a Debate

Click the Markdown or PDF (Print) button in the top-right of the debate thread to export the full conversation, including all persona responses and the judge output, to a file you can save or share.

7. Sessions and History

Every debate you run as a logged-in user is automatically saved as a session. The session sidebar on the left of the workspace lists all your past debates. Click any session to reload its full message history, personas, and judge output.

To start a fresh debate, click the New Debate button at the top of the sidebar. Your session history is private to your account.

Note: Guest users (not logged in) do not have session history. All debate data is lost when they close the browser tab.

8. Profile & Settings

Click your account name in the top-right corner to access your profile and settings page.

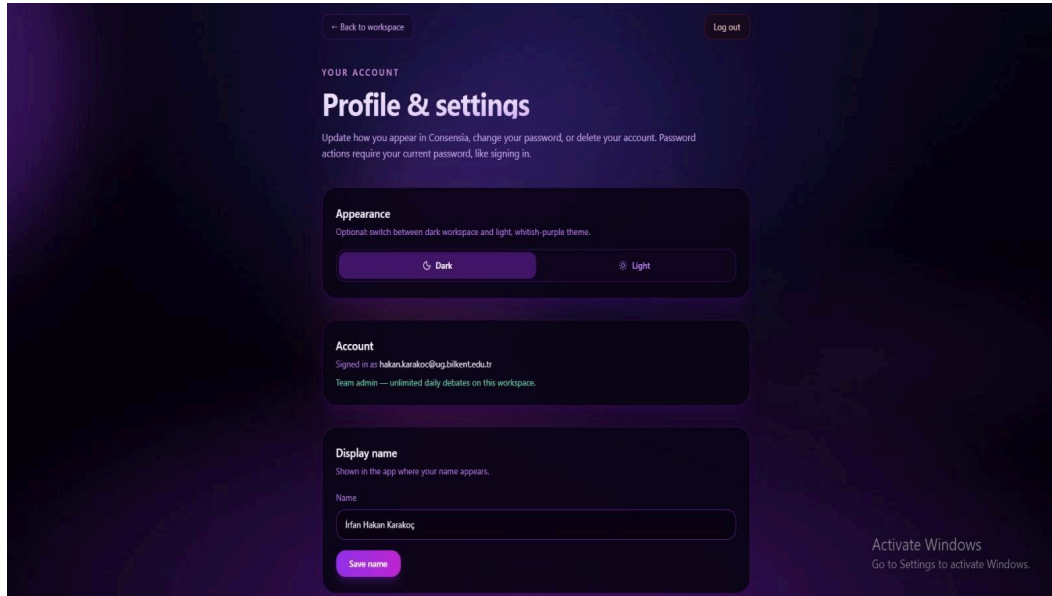


Figure 13 – Profile and settings – appearance and account information

8.1 Appearance

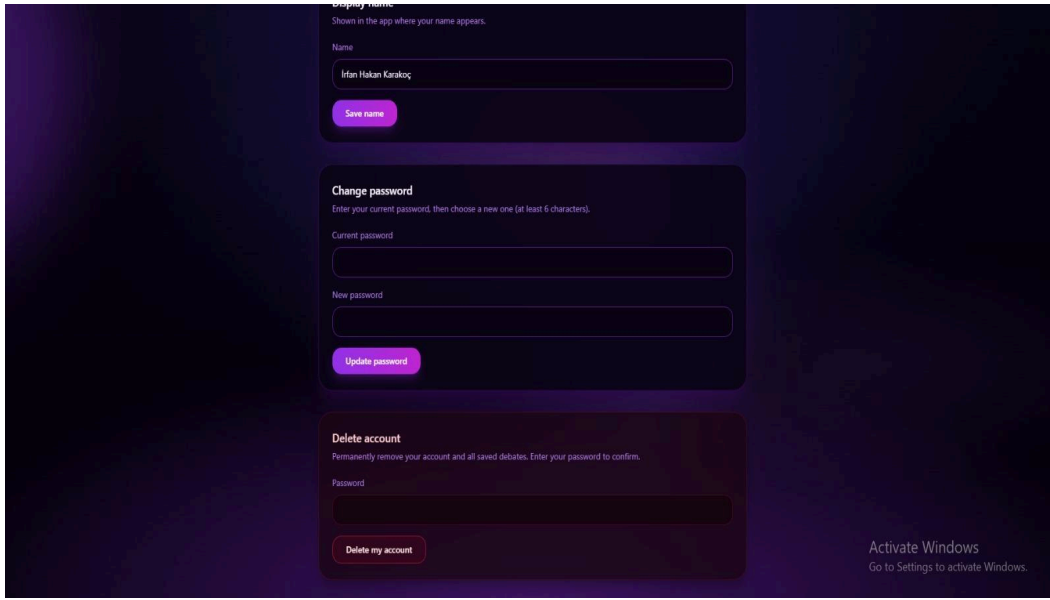
Switch between Dark mode (default purple-and-black theme) and Light mode (whitish-purple theme) using the toggle at the top of the settings page.

8.2 Display Name

Update the name that appears in the application. Enter a new name and click Save name.

8.3 Change Password

Enter your current password and your desired new password (minimum 6 characters), then click Update password.



The screenshot displays a dark-themed user settings interface. It is divided into three main sections:

- Display name:** A section titled "Display name" with a subtitle "Shown in the app where your name appears." It contains a text input field with the value "İrfan Hakan Karakoç" and a purple "Save name" button below it.
- Change password:** A section titled "Change password" with a subtitle "Enter your current password, then choose a new one (at least 6 characters)." It contains two text input fields: "Current password" and "New password". A purple "Update password" button is located below the second field.
- Delete account:** A section titled "Delete account" with a subtitle "Permanently remove your account and all saved debates. Enter your password to confirm." It contains a text input field labeled "Password" and a red "Delete my account" button below it.

In the bottom right corner of the settings area, there is a small text notification: "Activate Windows Go to Settings to activate Windows."

Figure 14 – Change password and delete account options

8.4 Delete Account

To permanently delete your account and all saved debates, enter your password in the Delete account section and click Delete my account. This action is irreversible.

9. Admin Panel

Users designated as administrators have access to a Workspace Statistics panel. To open it, go to your profile page and click the Admin link.

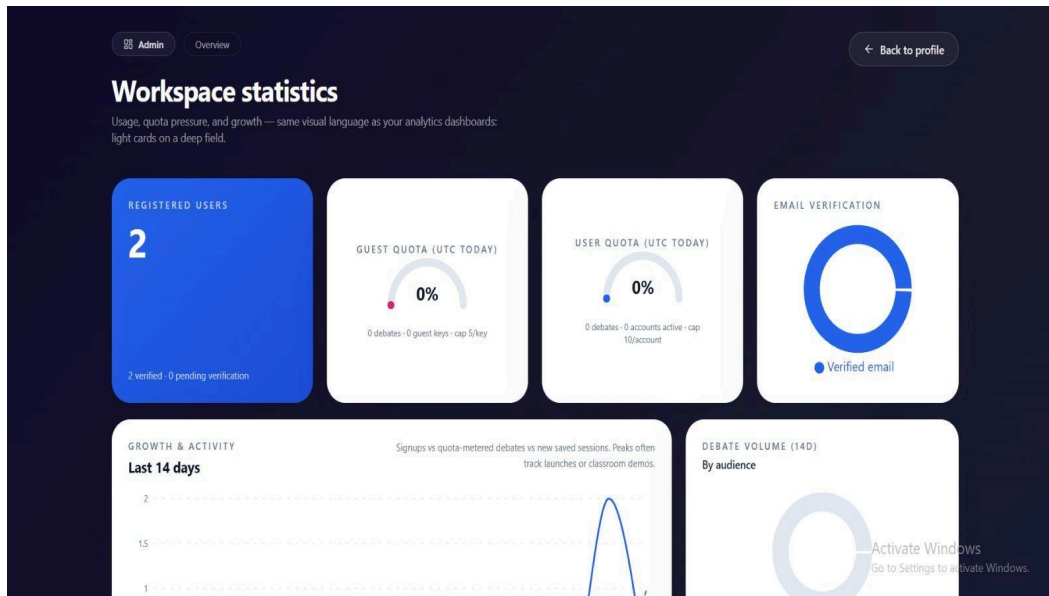


Figure 15 – Admin panel – workspace statistics overview

9.1 Usage Statistics

The top row of the admin panel shows:

- Registered Users – total number of accounts and how many have verified their email.
- Guest Quota (UTC today) – percentage of the daily guest debate cap consumed.
- User Quota (UTC today) – percentage of the daily per-account debate cap consumed.
- Email Verification – a donut chart showing verified vs. unverified accounts.

9.2 Growth & Activity

The Growth & Activity chart shows signups, quota-metered debates, and new saved sessions over the last 14 days. Peaks typically correspond to demos or classroom usage events.

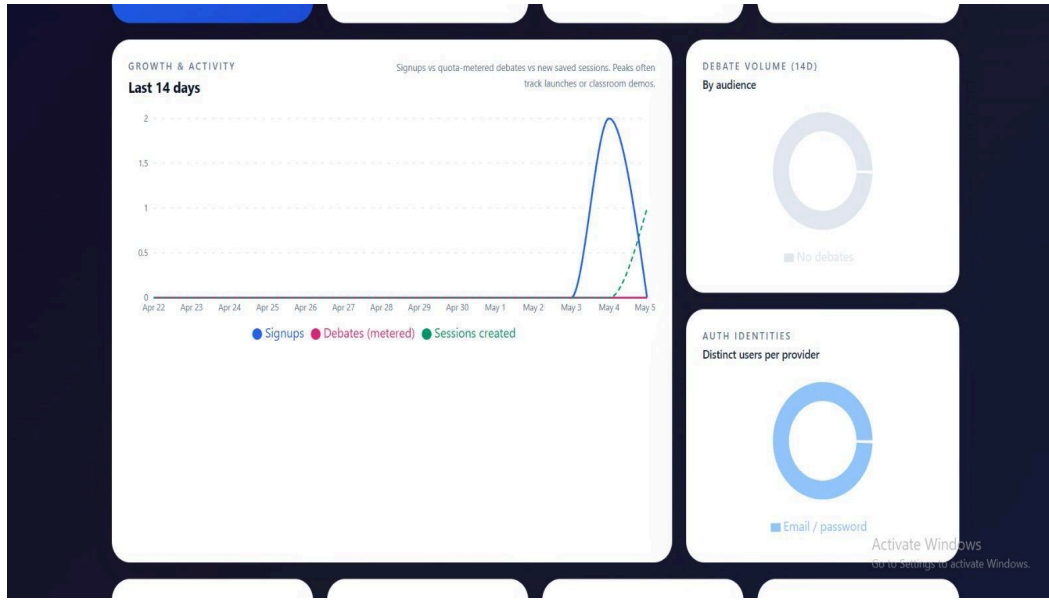


Figure 16 – Growth and activity chart with auth identity breakdown

9.3 Sessions, Messages, and Debate Volume

The stat cards below the chart show aggregate counts:

- Sessions – total saved debate sessions in the last 7 and 30 days.
- Messages – total messages stored across all debates.
- Debates Today / Debates (14D) – quota-tracked debate counts.

9.4 User Management

The Accounts table at the bottom of the admin panel lists all registered users with their name, email, verification status, authentication method (local or Google), join date, and admin status. Admins can grant or revoke admin privileges for any other user directly from this table.

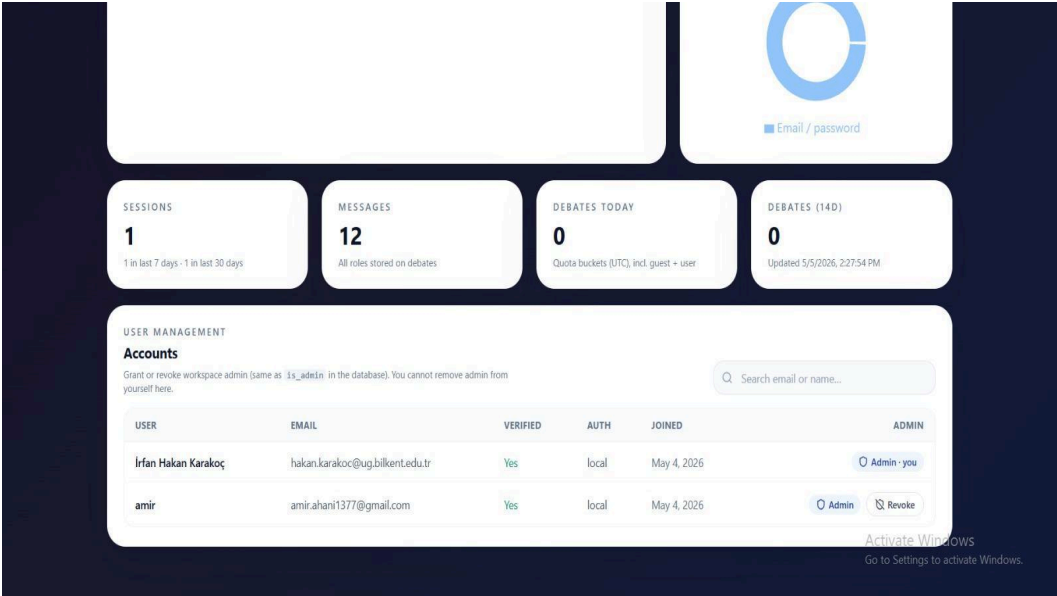


Figure 17 – User management table with admin controls

10. Documentation & Reports

The Consensia homepage includes a Reports & Minutes section where all official course documents and meeting minutes are available as PDFs. These include the Project Information Form, Assessment of Innovation Form, Project Specification Document, Analysis and Requirements Report, Detailed Design Report, and the Final Report.

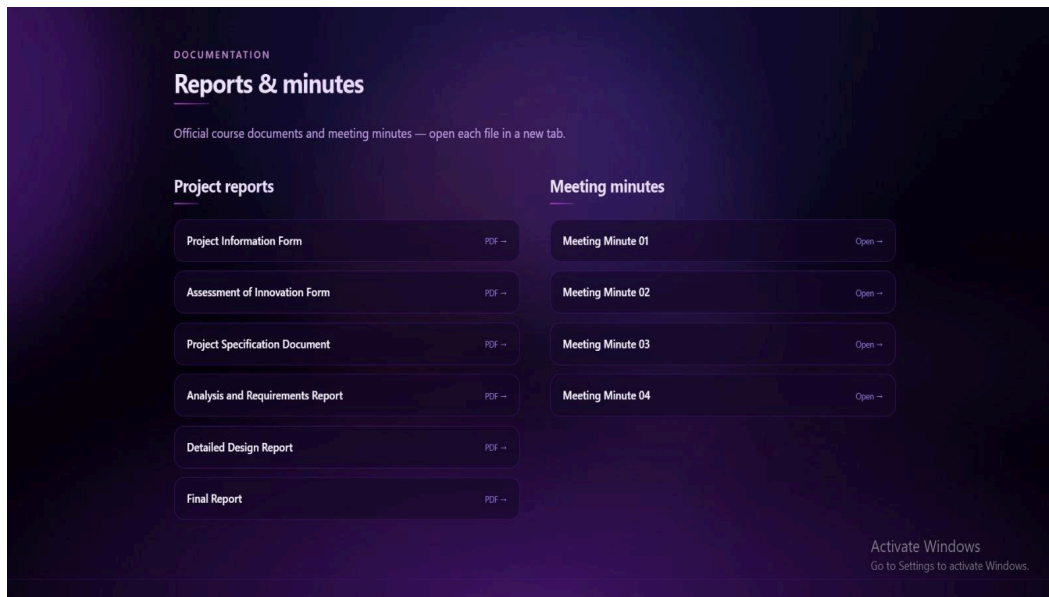


Figure 18 – Reports and meeting minutes page

11. Quick Reference

Persona Creation Methods

Method	When to Use	Input Required
Manual	Any fictional or generic role (e.g., Security Architect, Product Manager)	Name + free-text description
CV	A specific real person whose CV or resume you have	Upload PDF or DOCX
Researcher	An academic researcher with a Google Scholar profile	Name search query

Keyboard & UI Shortcuts

- Send debate question – click the purple arrow button or press Enter (in the input field).
- New debate – click New Debate in the top-left sidebar.
- Collapse/expand sidebar – click the arrow (➤) button on the left edge.
- Export debate – Markdown or PDF (Print) buttons at the top-right of the thread.
- Switch theme – Profile → Appearance → Dark / Light.

Limits

- Maximum active personas per debate: 5
- Maximum debate rounds: 3
- Maximum attachment size per message: 12.0 MB
- Daily debate quota for guest users: 5 per API key
- Daily debate quota for registered users: 10 per account

Support & Source Code

Source code is available on GitHub: github.com/AmirAhani/Consensia For questions or issues, contact the project team via Bilkent University channels.