

Custom Project: Overview & Proposal Instruction

Phase 3, 1st AbzumsAI Program, 2025

1. Project Overview

Each team, consisting of one to three individuals, will submit a single project proposal. Your initial task is to identify a problem that genuinely excites you and aligns with your interests, regardless of the specific domain. Problems are ubiquitous, so observe your own context and surroundings, and choose a challenge you're eager to address. It's often most beneficial to select a problem you've personally encountered. Once you've identified a problem, you will then design a software-based solution (developed using the Python programming language and other relevant tools) to solve it, outlining your plan in this proposal.

You have the option to request an AbzumsAI program instructor (in the 3rd phase) as your project “mentor”. If they accept, include their name in your proposal. This mentorship is entirely optional, and you can complete the project independently.

Upon submission, you will receive an email regarding the outcome. This email will either signify acceptance, allowing you to commence project work, or indicate that revisions are necessary. If revisions are required, you must implement them before beginning your project. Following acceptance, you will have approximately one month to complete your project. On **Projects Day**, you will deliver a 5-10 minute presentation on your work, and your final scores will be assigned accordingly.

2. Team Expectations and Projects Day

Team Expectations: For multi-person teams (two or three individuals), our expectations for the scope and depth of your project will be commensurate with those of individual contributors. Please consider this limitation that your team can not be made up of four or more individuals.

Projects Day: The Projects Day event will be held in-person at a hall within the medicine school, Alborz University of Medical Science. University officials and Professors will be present, offering a valuable opportunity to showcase your acquired skills and potentially forge future connections.

3. Project Proposal Key Information

Your PDF proposal must include the following information at the top of the document:

- **Title:** The provisional title of your project. This can be updated later (for the presentation).
 - **Team Member Names:** A comprehensive list of all team members, including their names and email addresses.
 - **Mentor:** Indicate your mentorship status using one of the following options:
 - **(a) 'X has already agreed to be our mentor':** Use this if an instructor has already committed to mentoring your team. If you are pursuing a project proposed by an AbzumsAI member, write their name here.
 - **(b) 'We would like to request X as our mentor':** Use this if you are requesting a specific instructor as your mentor.
 - **(c) 'We have no particular mentor':** Use this if you do not have a preferred mentor.
 - *Note: You are not expected to have a mentor pre-assigned at the time of proposal submission; one will be assigned after your proposal is received.*
 - **(Optional) External Collaborators:** If you have any collaborators who are not AbzumsAI students, list their names and email addresses.
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4. Proposal Sections: 1-2 pages, in English, 12pt Times New Roman, as simple as possible.

4.1. Problem Summary

Every project should address a discernible “problem”, and can also be called a challenge, a tough situation, etc. In this section, clearly articulate the problem your project aims to solve.

You can begin with a concise, single-sentence summary of the problem, followed by a detailed explanation, if necessary. For instance, your summary could be: "Person X needs to perform Y, but they are hindered by excessive cost/time/etc." The subsequent explanation should provide essential context, detailing the existence of this need, currently available alternatives, and their associated inefficiencies or costs.

Crucially, avoid discussing your proposed solution in this section. Focus solely on defining and validating the root problem. The objective here is to demonstrate that your project addresses a real, valuable problem that's worthy of development into a tangible product, delivering substantial value to the end user. While this is your project for the 3rd phase of the program, we encourage you to consider continuing its development beyond the AbzumsAI program if it proves viable.

4.2. Solution Summary (Project Description)

This section details your project plan. While the project scope can evolve, your proposal should outline a well-considered initial approach, developed through discussion and research of the problem. Please address the following questions, structuring your description as advised, but adapting it as necessary:

- **Main Goal(s) of Your Project:** Clearly state the primary objective(s) of your project. This could involve enhancing an existing, underperforming system or creating an entirely new one; both approaches are valid. Explain the inspiration behind your project and what motivates your diligent commitment to it. This information is vital for the project's evaluation.
- **Metrics for Improvement:** Describe the specific metrics you intend to improve. Clearly define the task, providing examples of input and expected output where applicable. Avoid repeating information covered in preceding sections.
- **Data Usage:** If your project involves data, specify its origin, the rationale for its selection, and your intended use. You may opt not to use data, utilize open-source datasets, or incorporate specialized datasets. Regardless of your choice, clearly state your data usage status.
- **Libraries and Techniques:** Detail the models, libraries, packages, and other tools you plan to employ. There are no restrictions on using open-source tools; you have the flexibility to build with virtually any resource. Provide as much detail as possible in your descriptions.
- **Evaluation of Results:** Specify at least one well-defined, numerical, and automatically measurable evaluation metric for quantitative assessment. Your project will be judged based on your chosen metric(s), making their careful definition paramount. Additionally, describe the existing scores or benchmarks against which you will compare your results for these metrics.
- **Ethical Challenges and Societal Risks:** Provide a single-paragraph description addressing the ethical challenges and potential negative societal risks associated with your project. Identify at least two valid ethical concerns or potential societal risks. Furthermore, propose practical, specific strategies to mitigate these risks (you are not required to implement these mitigation strategies).

5. Submission Instructions

Submit your proposal by completing the form at the provided submission link before the deadline. Your PDF document must use **Times New Roman font, 12pt or less**, and adhere to the correct order of the project proposal sections (definition of being well-structured). While the number of lines per section and your preferred media type within each section are flexible, the final PDF size must not exceed **10MB**. After submission, the results email will be sent to the main contributor as soon as possible.

6. Contact

For any questions regarding the custom project, please contact the staff members at AbzumsAI@gmail.com. We are available to ensure you are well-informed throughout this process.