

AI Product Student Guide

1. Purpose

The AI Product asks you to build something that matters - not merely something that works. AI has made building easier, but it has not made choosing a valuable problem, understanding the people affected, or testing whether a solution helps any easier. Your product must therefore use AI in its primary use case and be designed around the needs of a defined stakeholder.

Product is intentionally a broad term. It does not mean that you must create a physical, commercial, production-ready, or completely finished product. Your result may be a useful component, prototype, research result, dataset, benchmark, process, configuration, or other credible step toward something usable. What distinguishes an AI Product from "yet another project" is a clear path to value for a stakeholder - not whether it is ready to ship.

Value matters more than complexity, size, or feature count. A small, carefully scoped product that addresses an important need is often better than a large, confusing product. Simplicity and careful prioritization are strengths.

2. Core expectations

Your work is individual and must be independently understandable and evaluable. Students may share real stakeholders, but each product and evaluation must stand on its own. Your product must:

- use AI materially in its primary use case - not only use AI to help you build it;
- identify who cares, why they care, and how the product could create value;
- produce a preliminary product and a final product; and
- use either the real- or virtual-stakeholder path below.

2.1 Real-stakeholder path (encouraged)

A real stakeholder is someone who would use or directly benefit from a successful product, or who legitimately represents an organization that would. The term does not imply a partnership, contract, endorsement, purchase commitment, or transfer of intellectual property.

The stakeholder does not need to be able to use your submission immediately. They may value it as a prototype, component, preliminary result, or other meaningful step toward a usable outcome. They must, however, have a direct reason to care about that outcome and be able to evaluate whether your work makes credible progress toward it.

When recruited by Milestone 2, the stakeholder agrees to review your preliminary and final products in two 30-minute sessions and provide brief rubric feedback. The stakeholder may be a professional, faculty or staff member, community or organization representative, friend, or family member, but **may not be a Purdue student**. Purdue faculty and staff are allowed.

For Milestone 1, send the stakeholder the required one-page product brief and the [AI Product Stakeholder Agreement](#), then submit the required approval evidence.

2.1.1 Stakeholder validation

For a real stakeholder, use one of these validation paths:

- **Institutional email:** Provide the stakeholder's university, company, government, nonprofit, church, school, or other institutional email address. The course may validate the stakeholder through that address.
- **No institutional email:** Provide the stakeholder's personal email address and a short audio-recorded consent statement giving their name, relationship to you, particular interest in the product, and consent to participate.

2.1.2 Shared stakeholders (not team AI Products)

Students may work together to find and recruit the same real stakeholder or set of stakeholders. Related products may share a higher-level goal or form parts of a larger pipeline. However, **each student must create a standalone AI Product** that can be submitted, demonstrated, and graded in isolation. Each product must independently satisfy every AI Product requirement, including a material AI role and its own value proposition, artifacts, evidence, and clearly defined boundary. Sharing stakeholders does not create a team product, team submission, or team grade.

Students sharing stakeholders may hold combined preliminary and final review sessions. Each student receives 10 minutes to present their own product, with 20 minutes reserved across the session for questions and discussion. The stakeholder completes a separate rubric evaluation for every product.

Students / products	Session length
1	30 minutes
2	40 minutes
3	50 minutes
4	60 minutes

Use the separate [Shared Stakeholder Agreement](#) for two to four students. If more than four students share stakeholders, attach another shared agreement. Each listed product must still stand on its own.

2.2 Virtual-stakeholder path

If you do not find or do not wish to recruit a real stakeholder, you will need to create *three* distinct AI stakeholder personas. This is a normal, full-credit option. The personas should be realistic, specific to your product, and meaningfully diverse in their perspectives - for example, a user, someone affected by the product, and an organizational or community perspective.

2.2.1 How virtual validation works

At each milestone, you will give the current product materials to each of your three personas and complete a course-structured conversation. Each persona asks five in-depth, adaptive questions; the preliminary and final conversations also produce a simulated stakeholder rubric review. Use GPT-5.6 Sol, Claude Opus 5, or a later clearly stronger version from the same provider, at a student-attested medium-or-higher effort. You may use the same provider for all three personas.

Submit the complete chats and required model, persona, and structured-review records. The exact fields, prompts, evidence, and folder structure are contained in the applicable milestone ZIP. For Milestone 1, use the [AI Product Milestone 1 Package](#).

Important: Generated praise is not evidence that a product is valuable, and simulated feedback may never be presented as feedback from a real person.

2.3 Changing paths or stakeholders

You may revise your scope, stakeholder path, real stakeholders, or virtual personas through Milestone 2. After Milestone 2:

- you may add or switch to real stakeholders without special permission. A new Stage 3 stakeholder provides the current agreement, validation, and final review; your accepted Milestone 2 evidence remains valid;
- switching from real to virtual stakeholders is allowed only for a stakeholder emergency or unavailability and requires explicit written instructor approval; include the instructor's approval email in the final submission; and
- changing an established virtual persona requires instructor approval.

3. Three milestones

- 1 **Ideation and stakeholder framing:** Define the need, intended value, product idea, tentative plan, and stakeholder path.
- 2 **Preliminary product:** Submit a working prototype or preliminary result, supporting artifacts, and the required real or virtual stakeholder review.
- 3 **Final product:** Submit the final product and artifacts, final stakeholder- path review, concise final brief, and one- or two-sentence product pitch.

Each milestone uses a short **AI Product Brief** with two parts:

- **Product value case:** Who cares and why? What are you proposing? How will it create value? How do you plan to do it?
- **Engineering credibility checks:** What must be true? How will you test it? What are the most important risks? Where is AI necessary?

Focus on the one to three most important points for each question, not an exhaustive list. Supporting files are the place for additional detail.

Before committing to a scope, ask: **Can I produce something meaningful enough to demonstrate and evaluate within one semester?** This is a planning warning, not a promise that every experiment will succeed. Reduce the scope when needed; simplicity and careful prioritization are strengths.

4. Submission format and assistance

Your submission must follow the exact ZIP structure and detailed formatting instructions in the applicable milestone package.

4.1 Required structured format

Each milestone requires one ZIP containing all required files and structured YAML records. The applicable milestone package defines the exact filenames, fields, evidence records, and conditional requirements. You are ultimately responsible for submitting the correct format, including every required file, and confirming that the structured record accurately describes what is in the ZIP. Files considered but intentionally excluded must be explicitly marked as ignored during preparation rather than silently dropped.

4.2 Agent-assisted creation and validation

The milestone package is designed to make correct formatting easy. You can give an AI agent your available files and natural-language notes and let it organize the submission, fill clerical fields, and identify gaps. Included Python tools can build the final ZIP and validate its structure programmatically. You must still inspect the final summary, file list, and ZIP before submitting it. These tools are intended to minimize formatting burden so you can focus on finding stakeholders, developing the product, and wrestling with the important ideas.

4.3 Integrity

False stakeholder information, fabricated or altered evidence or transcripts, or material misrepresentation among the brief, artifacts, structured data, and source evidence may result in an F for the milestone or course and referral to the Office of the Dean of Students under Purdue policy.

5. Grading

Both stakeholder paths have the same grade eligibility. Course grading focuses on completion, learning, stakeholder reasoning, value, technical judgment, execution, evidence, response to feedback, and honest communication of limits. Complete, honest work that satisfies the core requirements can pass even when the resulting product is limited; higher grades require stronger judgment, execution, evidence, and learning. A real stakeholder's praise and a virtual persona's generated score do not determine the grade. AI-assisted review may help check submissions, but the instructor and TAs retain final grading authority.

6. Awards

Gold, silver, and bronze distinctions are separate from grades and recognize demonstrated product impact. Real-stakeholder evidence may carry more weight for these distinctions because it provides external validation; it provides no automatic course-grade advantage.

7. Showcases

An in-class project showcase is expected. A private alternative may be approved for proprietary, classified, confidential, or future-publishable work with the required confirmation. Any public website showcase is separate and strictly opt-in; declining public display does not affect grades or distinctions.