1. Form a project team (this is also your study team). Suggestions:
   * Look for complementary skills, find team members with similar interests to ensure that everyone is motivated and invested in the project's success, use class discussions and slack. You will also be assigned to a project team if you didn't find a team yourself.
   * Once you have identified potential team members, have a meeting to discuss expectations and goals for the project. This will help you ensure that everyone is on the same page and committed to the project.
   * Establish roles and responsibilities: Assign specific roles and responsibilities to each team member based on their skills and interests. This will help ensure that everyone is contributing effectively to the project.
   * Develop a communication plan: Establish a communication plan that outlines how the team will communicate, what tools will be used, and how often the team will meet. This will help ensure that everyone stays informed and can contribute effectively.
   * Be open to feedback and stay organized: Use project management tools, such as Trello or Asana, to stay organized and keep track of tasks and deadlines.
2. Choose a topic: Select a topic for your project that interests you and aligns with the course curriculum. It's a good idea to discuss your ideas with your instructor or TA and get feedback on the feasibility and scope of your proposed project. [Project Ideas](https://canvas.ucsc.edu/courses/69723/pages/project-ideas)
   * GAI for Education
3. Define the problem: Clearly define the problem that you want to solve or the question that you want to answer through your project. This should be done in the form of a research problem, question or a hypothesis. Make it clear what motivates the problem, is the problem significant and what's the previous approach to the problem.
   * Course content creation - From a textbook/videos synthesizes and overall summary of each chapter and notes for each important concept
   * Problem: There is a lot of learning content out there but often there are a wide variety of
4. Literature review: Conduct a literature review on the topic and related areas of study to see what has already been done, identify gaps in knowledge, and gain insights into relevant models, techniques, and datasets. Literature review provides the motivation and background of your proposed project.
5. Methodology: Describe the GAI approach that you plan to use to solve the problem or answer the research questions. This could be algorithms you will try, system components you plan to build, or/and data analysis you might do etc.
6. Implementation: Briefly discuss how you will implement the proposed methods, including the libraries you plan to use.
7. Evaluation: Explain how you plan to evaluate your research work. This may involve using quantitative metrics such as accuracy, precision, and recall, or qualitative assessments based on visualizations of the model's outputs. Identify and collect the data required for evaluation. This can include gathering data from publicly available sources or creating your own dataset if necessary.
8. Conclusion: Summarize the main points of your proposal, including the problem statement, methodology, data sources, and evaluation plan. Also, discuss the potential significance or impact of your project.
9. Timeline, resources and responsibilities: Provide a timeline for completing the project, including milestones and deadlines, and list the resources required, such as software, hardware, and datasets. List specific roles and responsibilities to each team member.
10. References: Include a list of references that you consulted in preparing your proposal, following the appropriate citation style.