MIS3536 – Final project

Information Systems Innovation with AI

In this final project, you will work with a group of project buddies to envision and "pitch" an innovative AI solution to a business problem.

Students project teams are expected to do the following.

1. **Pick an industry.** Students must choose an industry from the instructor-provided list of industries. ***No two project groups are to choose the same industry.*** (See the appendix of this document for a list of industries.)

2. **Pick a business.** Students must either choose a real existing business or envision an imaginary one. You may wish to create an imaginary business that is analogous to a familiar business. For example: the imaginary "Owl University" would be analogous to "Temple University" … you don't need to use the name "Temple University" in your presentation, but everyone knows what you mean.

3. **Pick a process.** Within that industry, there will be multiple processes. Pick at least one process that is ripe for innovation because it is costly, labor intensive, or problematic in some other way.

4. **Envision an AI-enabled innovation related to the process.** Your innovation may be as simple as an improvement to the existing process, or it may be a radically new alternative to an established way of doing things. Radically new alternatives are often called "disruptive". For example, "Uber" was disruptive to the transportation industry as it introduced self-employed taxi drivers and the ability to connect drivers and passengers through a smartphone app.

5. **Propose your innovation with a *convincing* presentation.** Groups are expected to present their work to the class, in person, in the last week of class. Not every group member must stand/speak/present to the class. However, all group members must be in attendance for the presentations (both classes).

   The presentation must contain the following elements:

   a. **A title slide that includes the names of every project member**

   b. **A brief description of the industry and the specific business**

   c. **A brief description of a current process within that business**

   d. **A *convincing* description/demonstration of your proposed innovation**

   e. **A thoughtful SWOT analysis of your proposed innovation**

   f. **Proposal Summary / Conclusion**

   g. **References**

IMPORTANT: Refer to the appendix for definitions of the terms "SWOT" and "***convincing***". Also, see the appendix for other important notes about the project.

DUE DATES: Students must present their work to the class on either 4/21 (Monday) or 4/23 (Wednesday). Students must also upload their power points to Canvas by 11:59 pm, 4/25 (Friday). Every student must upload a PowerPoint slide deck. Students on the same team will upload identical PowerPoint slide decks.

Appendix

Project Buddies

Students are expected to self-organize into project teams. Each project team must be composed of three or four project buddies.

Each student must commit to a team no later than 3/12/2025. If a student does not commit to a team by that date, then the instructor will assign a team to that student.

Project team assignments will be documented Canvas. Students may not change teams after 3/12/2025 without permission from the instructor. Changing teams after 3/12/2025 is discouraged!

Industries

Here is a list of industries that students can choose from. No two teams are permitted to choose the same industry. These options are available to the students teams on a "first come, first serve" basis.

1. Accounting Services
2. Agriculture
3. Cyber-Security
4. Entertainment
5. Finance/Insurance
6. Finance/Lending
7. Finance/Wealth Management
8. Food Service / Restaurant
9. Health Care
10. Hospitality
11. Pharmaceuticals
12. Public Administration (Government)
13. Real Estate
14. Talent Acquisition / Staffing Solutions
15. Transportation

Convincing

The term "convincing" is potentially vague and imprecise. To clarify expectations between the student and the instructor, please refer to the following list. Your project proposal will be considered "convincing" if it meets ***any three or more*** of the criteria below.

1. A realistic assessment of any challenges related to data collection and data cleansing.
2. Demonstrating a working proof of concept using Python code in a working Jupyter notebook. (Must be notably different from what the instructor has previously provided.)
3. Demonstrating a working proof-of-concept from an existing vendor.
4. Demonstrating a working proof-of-concept using advanced features of Excel, or an Excel add-in.
5. Demonstrating an improvement that runs autonomously with little or no human intervention.
6. Realistically appraising the cost of your solution in terms of licensing fees, hosting fees, and/or other costs related to implementation and maintenance.
7. Using ***real*** data to build a model and/or inform your process improvement.
8. Using real interviews with real subject matter experts to help you understand your process.

Students are ***not*** expected to meet ***all eight*** of the criteria.

Rubric

The following rubric will be used to determine your project grade.

Category	Pts
PowerPoint slides – Your Power Point slides must be attractive, complete, free of grammatical errors, and contain all the elements stipulated in the project document, and all elements must be in the proper order. (See 5a through 5g, above.) Point deductions will be assigned in 5-point increments at the discretion of the instructor.	40
PowerPoint slides – Students are expected to use the Accessibility Checker built in to PowerPoint and create presentation that is free of Accessibility errors.	10
Convincing - Your instructor will decide if a criterion has been met or not. 0 – One or fewer of Shafer's Eight criteria were met. 10 – Only two of Shafer's Eight criteria were met. 20 – Three or more of Shafer's Eight criteria were met.	20
In-Class Presentation – Students should plan on presenting for 10 minutes in the last week of class. Students earn points for a clear, convincing presentation, delivered within the assigned time-limit.	10
Teamwork / Contribution – These points are awarded at the discretion of the instructor. Project buddies will be given the opportunity to assess each other's contributions to the project. Your instructor will consider that feedback when assigning points here. Similarly, the instructor will take into account each student's attendance as project presentations are being made.	20
Total points	100

Important notes about grading

The following are potential exceptions to the rubric.

1. As noted in the above rubric, students on the same team ***may*** receive different project grades. Typically, the reason for such a discrepancy would be the "Teamwork/Contribution" portion of the of the rubric.

   However, if there are exceptional circumstances where a student is non-participatory and/or glaringly detrimental to the group, the instructor reserves the right to deduct additional project points up to and including a grade of zero on the project.

2. The "Late Assignment Policy" portion of the syllabus applies to the class project as it does to every other deliverable in the course.

3. The "Academic Integrity" portion of the syllabus applies to the class project as it does to every other aspect of the course. Students are encouraged to review the "Academic Integrity" syllabus content.

   Students are also advised to be careful to present factual evidence and provide references for their project. If data or evidence is deliberately fabricated, this needs to be clearly indicated.

   For example, students who knowingly present false pricing information (about a product or service) as if it were true, is violating "Academic Integrity" guidelines.

SWOT

SWOT stands for Strengths, Weaknesses, Opportunities, and Threats.

According to Wikipedia, "SWOT analysis evaluates the strategic position of organizations and is often used in the preliminary stages of decision-making processes to identify internal and external factors that are favorable and unfavorable to achieving goals. Users of a SWOT analysis ask questions to generate answers for each category and identify competitive advantages."

Students who are unfamiliar with SWOT analysis are encouraged to refer to the whole Wikipedia article here: https://en.wikipedia.org/wiki/SWOT_analysis

Students should also consider privacy and bias concerns as they conduct their SWOT analysis.