

*Argyle Nonno and Ricardo “Rick” Stoikovic continue to represent the senior management team of a top-ranked Midwest-based business school (the “School”). They’ve been working with consultants (Diane Scarlet, Maria Olive, and Jeff Navy) to design a system that would help them manage corporate programs that the School offers to a variety of companies worldwide.*

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Rick: It's been great working with you. So far you've successfully delivered an ER diagram. We know you're still hard at work building a use case diagram and a sequence diagram.

Argyle: We appreciate your commitment to this project.

Diane: It's been our pleasure. Have you had a chance to review the design? We'd love to hear any feedback you have.

Argyle: Not yet, unfortunately. Still, we're confident in your ability to produce good designs, and we feel it's time to begin turning your designs into code.

Rick: Honestly, we're getting a little bit of pressure to get some working pieces in place, even if they're small ones. Even a little bit of code would help us out right now, as we've got another contract landing very soon.

Maria: So how can we help?

Rick: We have a list of students, and we'd like you to develop the piece of the system that loads those students into our existing database. We also have a list of courses those students should take, so the system should create those courses, and assign these students to the courses, in the way you've modeled for us already.

Diane: That sounds straightforward enough. What can you tell us about the file listing the students?

Argyle: The list comes to us directly from our client company. We've asked them to use a standard CSV format, so it we can use it in several different kinds of files.

Maria: CSV is "Comma Separated Value", right? What fields will be included?

Argyle: Just basic information about each new student: last name, first name, email address, and their employee ID at the company.

Diane: So if I remember our previous discussion correctly, the system we develop will simply create new student records for each person on the list, right? Of course, if that student is already in our system, we should just reuse the record.

Rick: That's right. The best way to uniquely identify students is by their employee ID number, as sometimes people's names change. It might be helpful to add some sort of cohort identifier every time you upload a new list, too.

Diane: We can do that. You mentioned a file with a list of courses?

Argyle: Yes, after planning the curriculum, we'll provide a list of courses these students should take. This will be in a separate file.

Diane: Another CSV file?

Argyle: No, just a plain text list, with one course name on each line. Remember, these aren't pre-existing courses, and they don't need to connect to our regular student course system, so you're free to use your own design for this part. Then, after loading the students into the database, and creating the new courses, assign all of these newly created students to the newly created courses.

Diane: We can do that. To confirm, all of the students listed in the CSV file get added to each of the new courses listed in the courses file?

Argyle: Yes, that's correct.

Maria: A point of clarification. You said add students to courses, but what we're really doing is adding students to course sections, right?

Argyle: Yes, you're right. Students get enrolled in sections of courses. We have a policy that class sizes can't be above 35 students, so if there are more than 35 students, they should be evenly split across multiple sections.

Rick: And one more thing. To verify that everyone has been loaded, and to help with our next step, we need the system to output a report we can share with our department chairs. The report should list the new course titles and the number of students assigned to each section.

Maria: What kind of program do you want? Should the output file be in any particular format?

Rick: The entire program should be a web application, so you can just make a table in HTML. The web application should have a pleasing, consistent design. There's a way to make all of the pages look similar, right?

Maria: That should be no trouble. With some good templates and some styling, we can make it look great! Do you want any other reports? Perhaps a list of who is enrolled in each course section?

Argyle: That's it, for now. This is enough for a good first step, we think. You can do other reports if you have time, but we're just looking for a "minimum viable product" right now.

Diane: I have a question. You mentioned CSV and text files. Are you expecting to upload those, or can the user just copy and paste into a text field?

Argyle: You can do it whichever way you want. Copy and paste may be easier, but to make it simple, the user should be able to paste the entire file, not one row at a time.

Diane: Understood. Sounds straightforward enough. So how should we treat the rest of the project?

Argyle: We know we'll continue to develop it in the near future. You should plan for this to become a bigger application, but this is all we really need for this first step.

Diane: We start small for this first sprint?

Argyle: Yes, that's right. We're excited to see what you deliver.

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*True to his word, Rick has provided you some sample files of student data, in CSV format, and a sample list of courses.*

*You should plan to present your working program to Rick and Argyle at your next meeting.*