Project Step 3

CS340 Wedding Planners

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Group 119

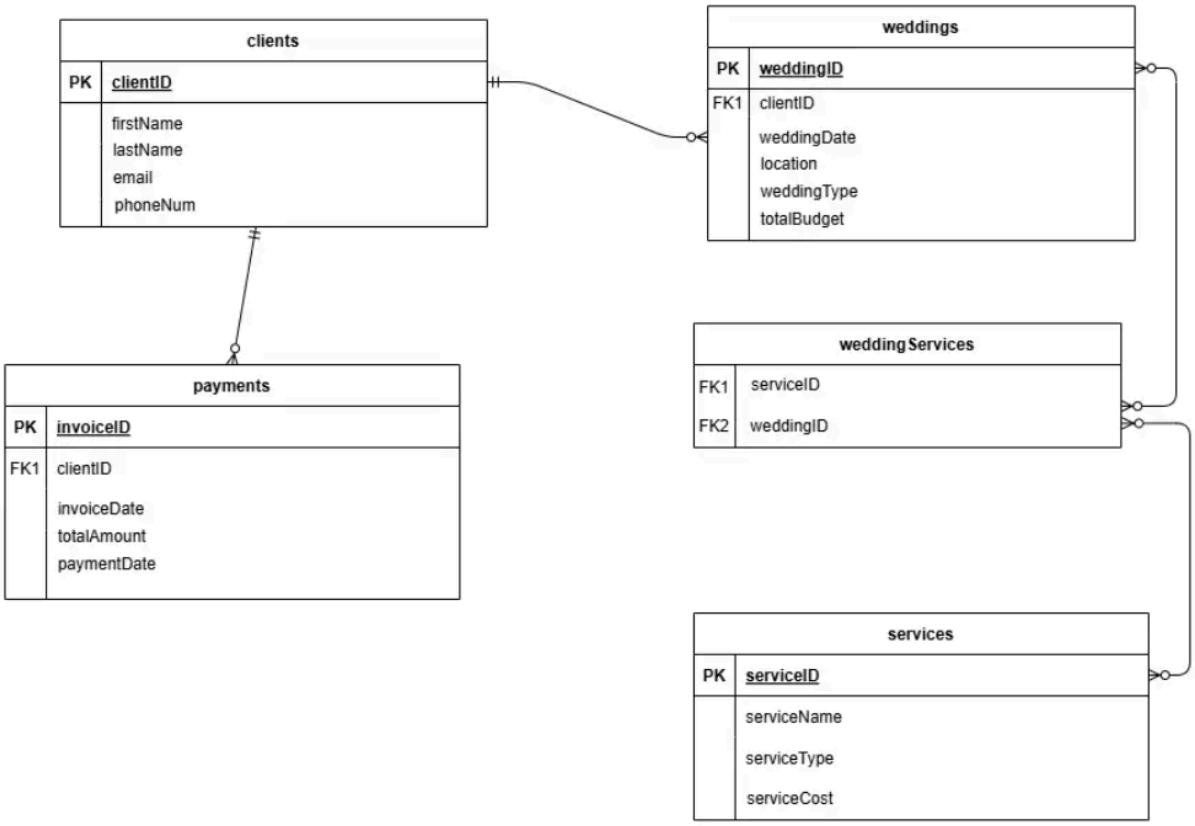
B) Project Outline and Database Outline - Updated Version:

Database Outline

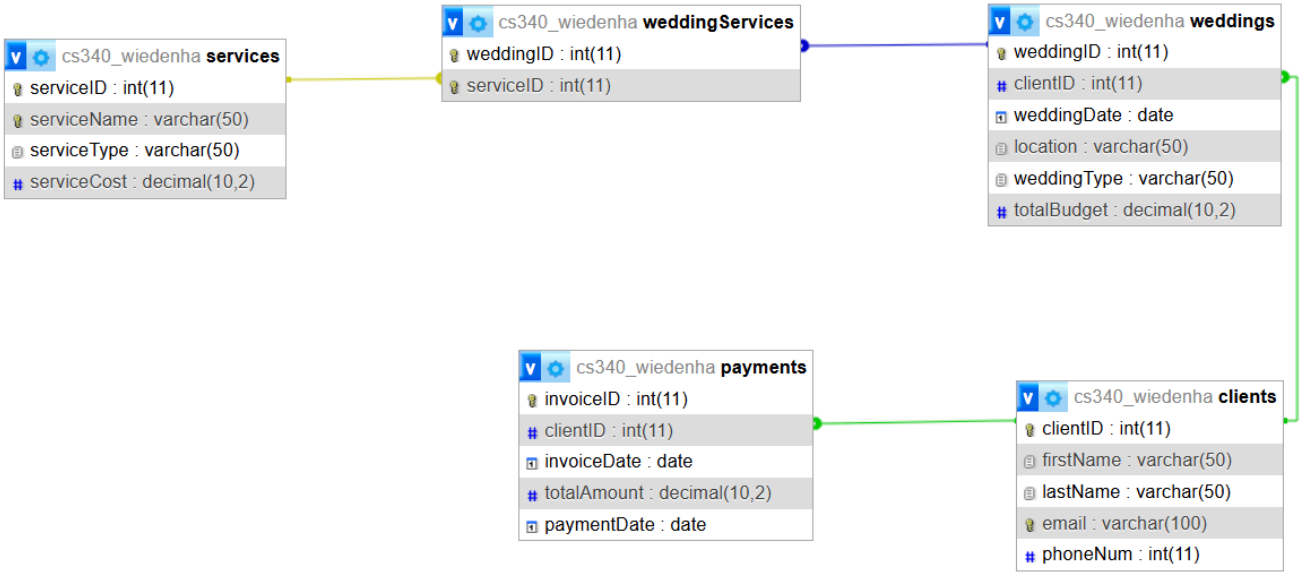
- Clients: Record information of the clients who plan the weddings
    - clientID: int(11) , auto_increment, unique, not NULL, PK
    - firstName: varchar(50), not NULL
    - lastName: varchar(50), not NULL
    - email: varchar, not NULL
    - phoneNum: int, not NULL
    - Relationship(s): A 1:M relationship with the Weddings entity will be implemented with clientID as a FK inside Weddings. A 1:M relationship with the Payments entity will be implemented with clientID as a FK inside Payments.
- Weddings: Base information on the event
    - weddingID: int, auto_increment, unique, not NULL, PK
    - clientID: int, not NULL, FK
    - weddingDate: date, not NULL
    - location: varchar (50), not NULL
    - weddingType: varchar(50)
    - totalBudget: decimal, not NULL
    - Relationship(s): A M:1 relationship with the Clients entity will be implemented with clientID as a FK inside Wedding. An optional M:M relationship with Services will be created with an intersection table called Wedding Services, which will have the serviceID from the Services entity and the weddingID from the Weddings entity as foreign keys.
- Services: Keep track of the different services that the wedding may need (bands, food, decor)
    - serviceID: int, auto_increment, unique, not NULL, PK
    - serviceName: varchar(50), unique, not NULL
    - serviceType: varchar(50)
    - serviceCost: decimal(10, 2)
    - Relationship(s): An optional M:M relationship with Weddings will be created with an intersection table called Wedding Services, which will have the serviceID from the Services entity and the weddingID from the Weddings entity as foreign keys.

- Payments: Records total amount charged to client's account
    - invoiceID: int, auto_increment, unique, not NULL, PK
    - clientID: int, not NULL, FK
    - invoiceDate: date
    - totalAmount: decimal(10, 2)
    - paymentDate: date
    - Relationship(s): A M:1 relationship with the Clients entity will be implemented with clientID as a FK inside Payments.

C) Entity-Relationship Diagram:



D) Schema:


cs340_wiedenha services
serviceID : int(11)
serviceName : varchar(50)
serviceType : varchar(50)
serviceCost : decimal(10,2)
cs340_wiedenha weddingServices
weddingID : int(11)
serviceID : int(11)
cs340_wiedenha weddings
weddingID : int(11)
clientID : int(11)
weddingDate : date
location : varchar(50)
weddingType : varchar(50)
totalBudget : decimal(10,2)
cs340_wiedenha payments
invoiceID : int(11)
clientID : int(11)
invoiceDate : date
totalAmount : decimal(10,2)
paymentDate : date
cs340_wiedenha clients
clientID : int(11)
firstName : varchar(50)
lastName : varchar(50)
email : varchar(100)
phoneNum : int(11)

E) Example Data:

Clients				
clientID	First Name	Last Name	email	Phone num
1	Alex	Wiedenhoeft	wiedenhoeft@osu.com	(503) 473-1234
2	Kaye	DelaChica	delachica@osu.com	(808) 398-1234
3	Tony	James	james@osu.com	(619) 845-0040
4	Gina	Lee	lee@osu.com	(971) 570-1234
5	Henry	Adams	adams@osu.com	(626) 432-4321

Weddings					
weddingID	clientID	weddingDate	location	weddingType	totalBudget
101	1	2025-12-03	Japan	Garden	20000
102	2	2027-11-26	Hawaii	Traditional	25000
103	3	2026-07-23	Hawaii	Beach	18000
104	4	2026-04-14	Chicago	City	30000
105	5	2026-01-01	Oregon	Black Tie	7500

Services			
serviceID	serviceName	serviceType	serviceCost
201	Live Band	Music	2500
202	Catering	Food	7000
203	Photographer	Photography	6000
204	Stylist	Decor	4000
205	Bartender	Food	1500

Payments				
invoiceID	clientID	invoiceDate	totalAmount	paymentDate
301	1	2025-01-03	20000	2025-07-30
302	2	2027-03-26	25000	2027-05-24
303	3	2026-01-23	18000	2026-04-02
304	4	2025-12-14	30000	2026-01-18
305	5	2025-10-01	7500	2025-12-15

Wedding Services	
WeddingID	serviceID
101	201
102	202
103	203
104	204
105	205

A) Fixes based on Feedback:

Feedback 1:

1. Does the schema present a physical model that follows the database outline and the ER logical diagram exactly? If yes, summarize what you see. If not, what changes would you suggest be made?

- I found that phoneNum is implemented with int on outline, but it is varchar in schema.
- But it is mostly following the database outline. Many to many relationships between Weddings and Services. One to many relationships between Clients and Payments, Clients and Weddings.
- Additionally, maybe this is intentional but the intersection table is missing on ERD. Possibly, it can cause some confusion.

2. Is there consistency in a) naming between overview, outline, ER and schema entity/attributes b) entities plural, attributes singular c) use of capitalization for naming?
If yes, summarize what the group uses for each of the above. If not, what changes would you suggest be made for improved consistency?

- Although outline and schema say ‘clientID’ on Weddings entity, ‘client_id’ has been used on the Weddings entity in ERD.
- On schema, entity names are using camel case, but ERD and outline say entity names are pascal case.

3. Is the schema easy to read (e.g. diagram is clear and readable with relationship lines not crossed)?
If yes, summarize what makes the schema clear and easy to read. If not, what changes would you suggest to improve the schema’s readability?

- Except the inconsistency above brings some confusion, others are easy to read. Diagrams are clear and not crossed. Clearly described the relationship between each entity.

4. Are intersection tables properly formed (e.g. two FKs and facilitate a M:N relationship)? If yes, summarize the components you see making up the properly formed intersection tables/M:N relationship. If not, what changes would you suggest to improve them?

- It is not shown on ERD, but it is well formed on schema. Services and Weddings are having a clear M:M relationship.

5. Does the sample data suggest any non-normalized issues, e.g. partial dependencies or transitive dependencies?
If yes, what are the issues, and what can be done to improve upon them? If not, summarize how the sample data shows normalization.

- I don't think normalization is required based on the sample data. It is already looking good.
- But one suggestion from me is that WeddingType is currently implemented with varchar but as far as I can see on the sample data, it is containing one single string. So maybe it is a better practice if you use enum or create another table for type.

6. Is the SQL file syntactically correct? This can be easily verified by using phpMyAdmin and your CS 340 database (do not forget to take backup of your own database before you do this!)
If yes, summarize what you see upon importing (e.g. any status message, which tables were imported AND populated with their corresponding sample data, etc.). If not, what happened with the import/what appears to be the issue(s) with the file that are causing this?

- You are missing ';' at the end of WeddingService table creation, which causes a syntax error and tables are not created.
- There are two same comments on payment table creation and weddingServices table creation.

7. In the SQL, are the data types appropriate considering the description of the attribute in the database outline?
If yes, summarize why they seem fitting. If not, what changes would you suggest based on the attribute descriptions?

- Like I mentioned above, WeddingType is currently implemented with varchar but as far as I can see on the sample data, it is containing one single string. So maybe it is a better practice if you use enum or create another table for type.
- serviceCost can be decimal rather than int, as we can not guarantee there's no floating value on the cost.

8. In the SQL, are the primary and foreign keys correctly defined when compared to the Schema? Are appropriate CASCADE operations declared?
If yes, summarize how they are correctly defined, and where CASCADE operations are declared. If not, what changes should be made to the key definitions and/or what CASCADE operations would you suggest declaring?

- Primary and foreign keys defined well on both sql and schema.
- I’m not 100% sure about this, but since you are using ‘on delete restrict’ on weddingService table, if a user tries to delete any row of weddings and there are dependencies with it, it will cause an error. But I think you don't have to restrict the deletion of the wedding even if it has dependencies because one line of deletion of weddings does not affect other entities or rows of itself.

9. In the SQL, are relationship tables present when compared to the ERD/Schema?

If yes, summarize the relationship tables present in both the SQL and the ERD/Schema. If not, which relationship tables aren’t present?

- Other than missing the intersection table on ERD it is present and well described.
- Having many to many relationships between services and weddings. And 1 to many for clients and weddings, as well as clients and payments

10. In the SQL, is all sample data shown in the PDF INSERTED?

If yes, summarize which tables in the SQL have the sample data from the PDF inserted. If not, what sample data is missing or inconsistent?

- No data insertion query found on sql file. Just one for weddingServices, but it is also commented.

11. Is the SQL well-structured and commented (e.g. hand authored) or not (e.g. exported from MySQL)?

If yes, summarize the structure and comments you see. If not, what changes would you suggest to improve the SQL file?

- Yes, other than the comments duplication that I mentioned above, it is well commented. Each table creation has some description and group details are also mentioned on the top of the file.

Feedback 2:
Does the schema present a physical model that follows the database outline and the ER logical diagram exactly? If yes, summarize what you see. If not, what changes would you suggest be made?

Yes, it appears as if Group 119 was able to model their Schema, ERD and other designs accordingly. However, the ERD is extremely simple and barebones. The Schema includes the intersection table, which is necessary.

Is there consistency in a) naming between overview, outline, ER and schema entity/attributes b) entities plural, attributes singular c) use of capitalization for naming? If yes, summarize what the group uses for each of the above. If not, what changes would you suggest be made for improved consistency?

ERD uses client_id for weddings even though elsewhere it is clientID.

Is the schema easy to read (e.g. diagram is clear and readable with relationship lines not crossed)? If yes, summarize what makes the schema clear and easy to read. If not, what changes would you suggest to improve the schema's readability?

The Schema is easy to read, with each relationship being defined clearly.

Are intersection tables properly formed (e.g. two FKs and facilitate a M:N relationship)? If yes, summarize the components you see making up the properly formed intersection tables/M:N relationship. If not, what changes would you suggest to improve them?

Both weddingServices is properly formed with the two relevant FKs.

Does the sample data suggest any non-normalized issues, e.g. partial dependencies or transitive dependencies? If yes, what are the issues, and what can be done to improve upon them? If not, summarize how the sample data shows normalization.

The sample data shows normalization because there are no redundancy of the data within each table. Additionally each attribute seems to depend on the primary key.

Is the SQL file syntactically correct? This can be easily verified by using phpMyAdmin and your CS 340 database (do not forget to take backup of your own database before you do this!) If yes, summarize what you see upon importing (e.g. any status message, which tables were imported AND populated with their corresponding sample data, etc.). If not, what happened with the import/what appears to be the issue(s) with the file that are causing this?

I got an error on the WeddingService table creation. It is missing a ";".

In the SQL, are the data types appropriate considering the description of the attribute in the database outline? If yes, summarize why they seem fitting. If not, what changes would you suggest based on the attribute descriptions?

All of the data types seem fitting, numbers and keys are all INTs, with a few Varchar descriptions.

In the SQL, are the primary and foreign keys correctly defined when compared to the Schema? Are appropriate CASCADE operations declared? If yes, summarize how they are correctly defined, and where CASCADE operations are declared. If not, what changes should be made to the key definitions and/or what CASCADE operations would you suggest declaring?

The PKs and FKs are all properly defined and CASCADE is used on payments and weddings.

In the SQL, are relationship tables present when compared to the ERD/Schema? If yes, summarize the relationship tables present in both the SQL and the ERD/Schema. If not, which relationship tables aren't present?

Everything is present and well described.

In the SQL, is all sample data shown in the PDF INSERTED? If yes, summarize which tables in the SQL have the sample data from the PDF inserted. If not, what sample data is missing or inconsistent?'

Yes, all tables have inserted the sample data.

Is the SQL well-structured and commented (e.g. hand authored) or not (e.g. exported from MySQL)? If yes, summarize the structure and comments you see. If not, what changes would you suggest to improve the SQL file?

The structure of the SQL makes sense, and there are good comments.

Feedback 3:

Does the schema present a physical model that follows the database outline and the ER logical diagram exactly?

Yes. The schema aligns with the database outline, including entities, attributes, and relationships such as 1:M between Clients and Weddings, Clients and Payments, and the M:M relationship between Weddings and Services through Wedding Services.

Is there consistency in a) naming between overview, outline, ER and schema entity/attributes b) entities plural, attributes singular c) use of capitalization for naming?

Yes. Entities are consistently plural, attributes are singular, and capitalization follows a structured pattern (camelCase for attributes, PascalCase for entities).

Is the schema easy to read (e.g., diagram is clear and readable with relationship lines not crossed)?

Yes. The diagram is clear and readable.

Are intersection tables properly formed (e.g., two FKs and facilitate a M:N relationship)?

Yes. Wedding Services acts as an intersection table with weddingID and serviceID as foreign keys, correctly implementing the M:N relationship between Weddings and Services.

Does the sample data suggest any non-normalized issues, e.g., partial dependencies or transitive dependencies?

No. The schema appears normalized with no redundant data, and relationships properly separate concerns into distinct tables.

Is the SQL file syntactically correct?

Yes. The SQL file follows correct syntax, with proper table creation, constraints, and insert statements.

In the SQL, are the data types appropriate considering the description of the attribute in the database outline?

Yes. INT is used for IDs, VARCHAR for names and emails, BOOLEAN for true/false values, and ENUM for role names and RSVP responses, aligning with expected attribute types.

In the SQL, are the primary and foreign keys correctly defined when compared to the Schema? Are appropriate CASCADE operations declared?

Yes. Primary keys and foreign keys are correctly assigned. However, there are no explicit ON DELETE CASCADE constraints, meaning deletions may require manual handling.

In the SQL, are relationship tables present when compared to the ERD/Schema?

Yes.The Required_Roles table properly facilitates event-role relationships, and Attendance_Sheets and RSVPs correctly implement attendance tracking.

In the SQL, is all sample data shown in the PDF INSERTED?

Yes.The provided INSERT statements include sample data for all tables, covering roles, members, events, required roles, attendance records, and RSVPs.

Is the SQL well-structured and commented (e.g., hand-authored) or not (e.g., exported from MySQL)?

Yes. The SQL appears hand-authored, as it includes structured INSERT statements, foreign key handling, and logical ordering of table creation. However, comments could improve clarity.

Feedback 4:

Does the schema present a physical model that follows the database outline and the ER logical diagram exactly?

If yes, summarize what you see. If not, what changes would you suggest be made?

For the most part. The outline and ERD contain tables for Clients, Weddings, Payments, and Services and the attributes match. The only thing missing that the Schema contains is the intersection table weddingServices.

Is there consistency in a) naming between overview, outline, ER and schema entity/attributes b) entities plural, attributes singular c) use of capitalization for naming?

If yes, summarize what the group uses for each of the above. If not, what changes would you suggest be made for improved consistency?

Yes, All of the entities are plural and written in camel case. All of the attributes are also singular and written in camel case.

Is the schema easy to read (e.g. diagram is clear and readable with relationship lines not crossed)?

If yes, summarize what makes the schema clear and easy to read. If not, what changes would you suggest to improve the schema's readability?

The schema is quite easy to read. All of the foreign keys share the same name with the primary keys of the respective tables. All of the entity names and attributes are legible and not too small.

Are intersection tables properly formed (e.g. two FKs and facilitate a M:N relationship)?

If yes, summarize the components you see making up the properly formed intersection tables/M:N relationship. If not, what changes would you suggest to improve them?

Yes the intersection table weddingServices is formed correctly, but it is missing from the outline and ERD.

Does the sample data suggest any non-normalized issues, e.g. partial dependencies or transitive dependencies?

If yes, what are the issues, and what can be done to improve upon them? If not, summarize how the sample data shows normalization.

I do not see any non-normalized issues or dependencies within the sample data. The attributes are all dependent on the primary keys and no data is duplicated.

Is the SQL file syntactically correct? This can be easily verified by using phpMyAdmin and your CS 340 database (do not forget to take backup of your own database before you do this!)

If yes, summarize what you see upon importing (e.g. any status message, which tables were imported AND populated with their corresponding sample data, etc.). If not, what happened with the import/what appears to be the issue(s) with the file that are causing this?

The SQL is syntactically correct, I copied the SQL into an IDE and not immediate errors were visible.

In the SQL, are the data types appropriate considering the description of the attribute in the database outline?

If yes, summarize why they seem fitting. If not, what changes would you suggest based on the attribute descriptions?

Majority of the data types are appropriate considering the description of the attributes. serviceCost in services is odd that it is an int(110 instead of decimal(10,2) to match the other money related attributes. A simple fix though to be more uniform.The schema does specify int(11) for all of the IDs but that is not seen in the table creation in the SQL file.

In the SQL, are the primary and foreign keys correctly defined when compared to the Schema? Are appropriate CASCADE operations declared?

If yes, summarize how they are correctly defined, and where CASCADE operations are declared. If not, what changes should be made to the key definitions and/or what CASCADE operations would you suggest declaring?

The primary and foreign keys are all defined correctly and there are CASCADE operation for DELETE and RESTRICT where appropriate.

In the SQL, are relationship tables present when compared to the ERD/Schema?

If yes, summarize the relationship tables present in both the SQL and the ERD/Schema. If not, which relationship tables aren’t present?

Yes the relationships are presented with the definitions of foreign keys where appropriate.

In the SQL, is all sample data shown in the PDF INSERTED?

If yes, summarize which tables in the SQL have the sample data from the PDF inserted. If not, what sample data is missing or inconsistent?

There does not appear to be any sample data inserted into the tables in the SQL. There appears to be a commented out section with a story, but it does not have any inserted data.

Is the SQL well-structured and commented (e.g. hand authored) or not (e.g. exported from MySQL)?

If yes, summarize the structure and comments you see. If not, what changes would you suggest to improve the SQL file?

Yes the comments are well thought out and not distracting.

Grader Feedback:

Great work, be sure to implement nullable relationships as per the project description. DM me on teams with any questions or concerns.

Another thing, I am seeing sample data in your DDL but it is not fully implemented, be sure to do this.

Our Changes:

The feedback we received from Project 1's draft centered around the lack of specifics. Our project was focused on event planning, where users can plan any event. This would've made it difficult to create an application, so as a result we decided to narrow down our focus to wedding planning. By clearly stating a problem, we are able to center our focus on one main project. With this, we have been able to establish a direct target audience, such as couples and wedding planners (clients) that can manage their weddings by overseeing their services, payments, and wedding details.

Another piece of feedback was specifying entities. Our project continues to have four entities: clients, weddings, services, and payments. Before, our attributes were vague, now they are much more descriptive, making it easier to understand.

We used feedback from the second draft of our project to make several changes as well. Firstly, we changed the phoneNum attribute's data type in the schema from varchar to int and fixed minor naming inconsistencies in the ERD and schema. We also added the intersection table weddingServices to our ERD. In addition, we added a nullable relationship in the weddingServices entity. Lastly, we made sure to include the INSERT statements in our data definition queries.