GROUP 04
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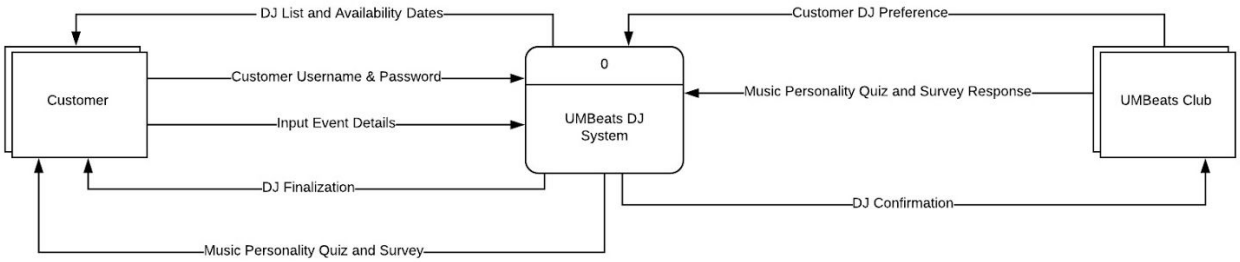
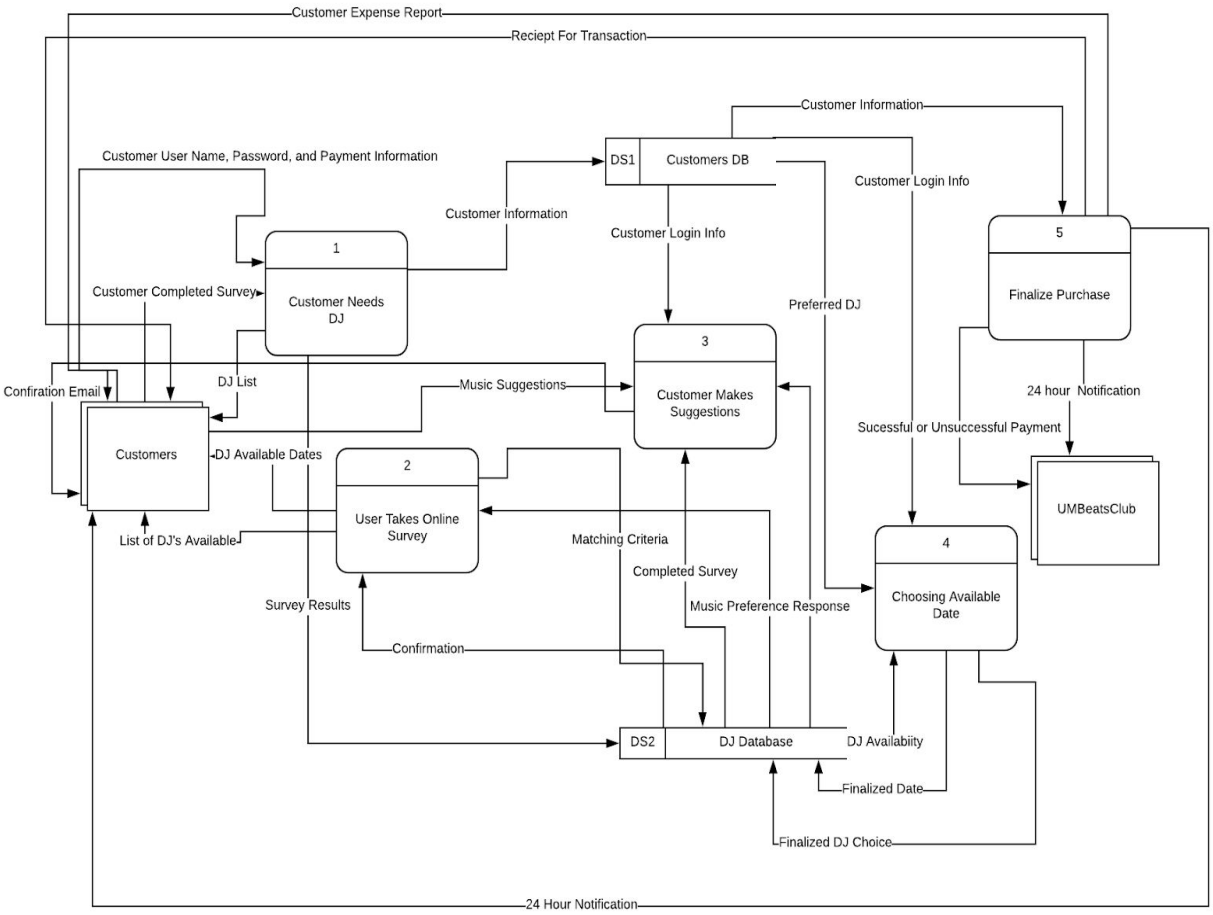
Table of Contents

Context Level Diagram



Level 0 Diagram



Text Definition for DFD

Context Level Diagram -
Our context level diagram shows the relationship between the UMBeats DJ information system and its relatable entities such as Customer and UMBeats club. The diagram also displays data flows which show input and outputs related to the process.
In this diagram we have several entities, processes, data flows, and data stores.

Entities:

- UMBeats Club - This is an entity made of the owners and supervisors of the UMBeats club. Here, we also contain information about our DJs.
- Customer - The customer are the main actors who interact with the system by providing information and receiving outputs.

Data Flows:

Inputs -

- Customer input their username and password into the UMBeats system.
- Customer input their event details.
- UMBeats club inputs the customers music personality quiz and survey response into the UMBeats DJ system.
- UMBeats club inputs the customers DJ preference into the UMBeats system.

Outputs -

- The system outputs a list of matched DJs and when they are available to host events.
- The system outputs the music personality quiz and survey to the customer.
- The system outputs the days DJs are available to perform to the customer.
- The system outputs a message to the customer to finalize on a DJ.
- The system outputs the DJ confirmed by the customer to the UMBeats club.

Level 0 Diagram -

Processes:

1. Customer needs DJ - This process defines the steps a customer takes to create a profile with UMBeats.
2. User takes online survey - This process displays the act of a customer taking our music personality quiz to match closely with a DJ.
3. Customer makes suggestion - This process displays how the customer suggest changes to their matched DJ.
4. Choosing available dates - This process takes information from the customers event and the DJs availability to find a possible match between the two.

5. Finalize payment - This process describes the process of charging and receiving payment from the customer for the event.

Data stores:

- DS1 Customer database - This data store contains information about the customer such as their usernames and passwords alongside their payment information. This information is used to bill the customers, create receipts, and contact the customers when needed.
- DS2 DJ database - This data store contains information about our DJs. It contains their availability and music specialites. We use this data store to match possible DJs to customer events.

Data Flows

Inputs:

- Customer username, password and payment information name and email are inputs for the customer needs DJ process.
- The customer provides responses to the survey and music quiz which are then sent process 1.
- The customer inputs their music suggestions to process 3.
- The created customer profile is sent to DS1 and used in further processes.
- The matching criteria takes responses from process 2 and sends the information to DS2.
- The customers payment information in DS1 is pulled by the finalize purchase process.
- A successful or unsuccessful payment notification is sent to the UMBeats club.
- The customers login information is pulled by process 4.
- The finalized date is sent to DS2.
- The finalized DJ is sent to DS2 so he can be taken off the available to host events list.

Outputs:

- Receipt for transaction is sent to customer from finalize purchase process.
- Customer expense report is sent to customer from finalize purchase process.
- Process 1 outputs the survey results to DS2 so DJs have access to music responses by the customer.
- The prefered customer DJ is pulled from DS1 and used to finish process 4.
- Customer gets a event confirmation email from process 3.
- The customer receives a 24 hour notification from process 5.
- Customers receive a list of available DJs and the dates they can perform from process 2.
- The completed survey is pulled from DS2 by process 3.
- The music preference responses stored in DS2 is pulled by process 2.
- Customer login information stored in DS1 is pulled by process 3.

Use Case Analysis:

Use Case Name: Customer Needs DJ	ID: 01	Priority: High
Brief Description: This use case describes how the customer is in need for a DJ.		
Actor: Customer		
Trigger: Customer decides to host/plan a party. Type: External Temporal		
Preconditions: 1. Customer needs a party for a DJ to attend to. 2. Customer has knowledge that there is a private DJ. 3. Customer knows about UMBeats		

Normal Course	Information for Steps
1. Customer chooses to plan a party 2. Customer will choose the method in which (s)he wants the music. 3. After choosing UMBeats, the customer will create an account. 4. Customer will then take the online survey to figure out that DJ is the best match. 5. System will give information on the DJs that match with the results provided by the customer. 5.1 System will provide a copy of customer responses to the DJ's 6. System saves Customer Information to Database for Customers	← Customer username and password ← Customer takes survey → System will provide DJ's list based on the survey results → System provides copy results to DJ →System saves Customer Info to Customer DB

Postconditions: 1. Customer does end up using UMBeats. 2. Customer can use different DJ services. 3. Customer Creates Account.			
Summary: Inputs	Source	Outputs	Destination
Customer username, password, and Payment Information (Customer Information) Customer takes survey	Customer Customer	System will provide DJ's list based on the survey results System provides copy results to DJ. System will save Customer Information to Customer DB	Customer DB DJ Database Customer DB

Use Case Name: Customer takes online Survey	ID: 02	Priority: High
Brief Description: This use case describes how the customer will complete an online survey or personality quiz which will be recorded by the system, which then finds the best possible match for the customer with the DJs		
Actor: Customer		
Trigger: Customer heard about the online survey and music personality quiz. Type: External Temporal		
Preconditions: 1. Customer needs to know what kind of music (s)he wants for the event. 2. The customer must have an event planned. 3. Customer must have access to the internet. 4. Customer must create account on UMBeats.		

Normal Course	Information for Steps
1. Customer answers questions based on music preference	← Music preference response
2. System verifies the DJ is matched to the customers desired style of music	→ Matching criteria
3. The system displays the DJs available	→ List of DJs
4. The customer chooses one of the DJs	← Confirmation
5. The system gives available dates for the DJs to the customer	→ DJs available dates

Postconditions:
1. Customer can change DJ if desired
2. Customer now has information in the DB for the system to correctly match the DJ.

Exceptions:
E1: If customer does not agree with the results with the UMBeats selection:

1. The System will then have the customer retake the survey with modified questions to have best fit for the customer.
2. The system will offer other music genre choices that may sound like it will also match the customers desired music genre.

Summary:

Inputs	Source	Outputs	Destination
Music preference response	UMBeats DJ Database	Matching criteria	UMBeats Database
		List of DJs	Customer
Confirmation	UMBeats Database	DJs available dates	Customer

Use Case Name: Customer makes music suggestions through email system	ID: 03	Priority: High
Brief Description: This use case describes how the customer will makes suggestions through the email system.		
Actor: Customer		
Trigger: Customer takes the surveys and have music suggestions. Type: External Temporal		
Preconditions: 1. Customer completed the online survey and music personality quiz.		

Normal Course	Information for Steps
1. Customer takes the online survey. 2. Customer takes the music personality quiz. 3. Customer makes suggestions based on the survey and music personality quizzes through email. 3.1 Customer logs in to their email account and sends an email. 4. Customer receives a confirmation email back from the system.	← Completed the survey ← Completed the music personality quiz ← Customer login info ← Sends suggestions through email → Customer gets confirmation email.

Postconditions:
1. Customer happy with the suggestions (s)he made.
2. System follow ups with customer about music suggestions.

Summary:

Inputs	Source	Outputs	Destination
Completed survey	DJ database	Customer gets confirmation email	Customer email
Completed music preference response	DJ database		
Customer login info	Customer DB		
Sends suggestions through email	Customer		

Use Case Name: Choosing available dates	ID: 04	Priority: High
Brief Description: This use case describes how the customer will choose their available dates and if it will match the DJs open dates.		
Actor: Customer		
Trigger: Customer is ready to finalize with the DJ that best matches their schedule. Type: External Temporal		
Preconditions: 1. Customer has desired date for the event. 2. Customer has a DJ chosen already. 3. Customer has sufficient amount of time to set up for the event.		

Normal Course	Information for Steps
1. Customer logs into account	← Customer login information
2. Customer will select from DJs they are interested in.	← Customer DJ Preference
3. System checks customer selection and DJs schedules to avoid double booking	→ Confirms customers DJ selection
4. Customer will choose the date that matches with the DJ and submits the date	← Selects DJs availability date
5. System finalizes the date for the customer	→ Finalizes the date

Postconditions: 1. Customer can change DJ at anytime. 2. Customer can change the date as long as both dates match for availability. 3. Customer is allowed access to view different DJs.
Exceptions: E1: DJ is already reserved for that date: 1. The System will notify the customer and redirect the customer to another date and check for availability. 2. System will ask for a custom date if none of the dates match with the customers.

Summary:

Inputs	Source	Outputs	Destination
Customer login information	Customer DB	Confirmed customers DJ selection	DJ Database
Customer DJ preference	Customer DB	Finalized Date	Customer DB
Selects DJs availability date	DJ Database		

Use Case Name: Finalize Purchase	ID: 05	Priority: High
Brief Description: This use case describes how the customer will finalize their event after choosing the DJ and the date and paying.		
Actor: Customer		
Trigger: Customer is ready to finalize their event by paying UMBeats. Type: External Temporal		
Preconditions: 1. Customer is paying with one of the accepted payment methods.. 2. The customer is aware of the cancellation policy.		

Normal Course	Information for Steps
1. Login to Customer account. 2. Systems shows customer the details of their event and a breakdown of the charges. 3. Customer completes the payment by card, cash, or check.. 4. After successful payment the system will print a receipt for the transaction. 5. System will send 24 hour reminder notification prior to the event.	← Customer Login → Customer Expense Report ← Credit card information/ Money from customer → Receipt for transaction → Sends 24 hour notification

Postconditions:
1. Customer can still alter date if need be. 2. Customer can rate the services of the DJ. 3. Can Add or modify the DJs for the event.

Summary:

Inputs	Source	Outputs	Destination
Customer Login	Customer DB	Customer Expense Report	Customer
Payment method	Customer DB	Receipt for transaction	Customer
		Sends 24 hour notification	Customer and UMBeatsClub
		Successful or unsuccessful payment received	UMBeatsClub