To:	Danshe Dancers Beth Farley
Purpose:	Danshe Project Review and JAD Modeling Session
Date and Time:	Friday, June 15, 2012 2:50 – 5:50 pm
Location:	Edmonds Community College, Snohomish Hall, room 124

Please join us for a project review and JAD modeling session where we will be discussing the needs and requirements of a website for the Danshe dance group. This meeting is a major milestone in our requirements gathering process, designed to ensure that the new website will provide exactly the benefits you want and expect. Your input is critical and we cannot proceed without it.

Our analysts, Sue Blocker, Diana Brown, Bruce Norman and Carrie Thornton, will present a quick summary of our findings, and review with you a context diagram of your website process. We will use a UML activity diagram to examine the process flow, which we have found to be an excellent way to examine and validate the workings of a website. We use modeling to aid in communication because "a picture is worth 1,000 words" in coming to a common understanding of requirements. UML diagrams are very easy to understand, they show us what is happening, why it is happening and in what order it is happening. Once we agree on a website process, the design of the new system becomes much simpler and more certain.

Our agenda is as follows:

3:00 – 3:05	Introductions and agenda review: Review of the agenda and purpose of the meeting. Introduce the analysis team and their roles.
3:06 – 3:10	Business Function: A brief review of the Danshe dance group publicity needs and how a website can meet those needs.
3:11 – 3:15	Modeling Methods: A quick presentation on Context and Activity Diagram models, how to use them and why they were selected.
3:16 – 3:25	Modeling Session: Validate a model of website processing. Document business rules and answer questions.
3:26 – 3:30	Feedback: Round robin opinion check and model approval, review items for follow-up. Set date for next meeting.

Business Requirement Models

For The

Danshe Website

Prepared by ModelThis:

Sue Blocker

Diana Brown

Bruce Norman

Carrie Thornton

June 15, 2012

CIS 235 Requirements Modeling

Instructor: Beth Farley

Change Control

Date	Updated By	Revision Notes
6-07-2012	Carrie Thornton	Scope and Overview
6-06-2012	Carrie Thornton	Formatting and insertion of diagrams
6-07-2012	Carrie Thornton	Formatting, insert updated diagrams, model descriptions
6-08-2012	Bruce Norman	Model descriptions
6-10-2012	Sue Blocker	Context Model components, Use Case Actors and Descriptions
6-14-2012	Carrie Thornton for Sue Blocker	Memo added

Table of Contents

Executive Overview

Overview

Danshe is an up and coming dance group that provides entertainment in the form of traditional Irish dance combined with a modern vibe. Clientele consists of local venues such as pubs and bars, as well as various community events, special occasions and seasonal events. Pivotal dates or times for Danshe include St. Patrick's Day, Folk Festivals and the NW Booking Conference. Danshe has come to us to develop a plan for a website that would provide the means to publicize and promote their group as well as provide a point of contact for clients and potential clients to book events.

Scope Statement

The scope of this project is to develop a plan for a public website that would be used by Danshe staff and the public

The following are within the scope of the project:

- Develop a website plan that will meet these business needs:
- Ease of use
- Public access
- Danshe promotion
- Event bookings
- Blog
- Customer testimonials
- Event and group pictures
- Calendar of Events

The following are beyond the scope of the project:

- Design of website
- Implementation of website
- Plane for e-commerce

Modeling Methods Used

The ModelThis team has used different modeling methods to reveal information and different aspects about the Zachman Framework elements of what, how, where, who, when and why related to data, function, network, people, time and motivation regarding the courses and programs offered at EdCC. Each modeling method takes a different look at the data or activity it is describing.

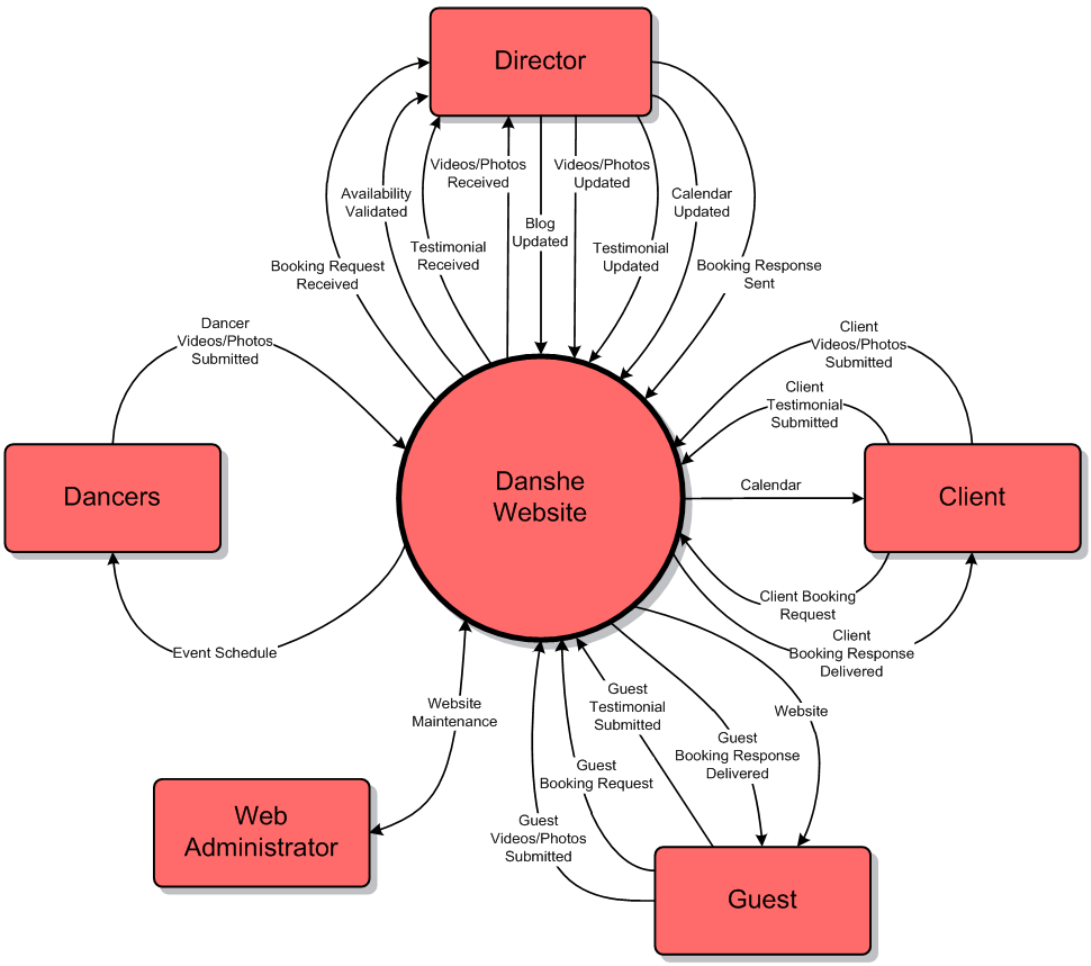
Context Model

Description

The context model is a top-level view of an information system that shows the boundaries and scope of the system. The symbol in the center of the diagram represents the entire information system. The symbols around the center represent the entities that interact with the central process. The named arrows represent the data that flows between the entities and the central process.

The context diagram is the highest level of a DFD. It does not show data stores, but it includes all entities within the system. A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system. It shows the interaction between the system and outside entities or actors. It helps users visualize how the system will operate. We chose this type of context-level diagram for its simplicity and familiarity.

Diagram



Danshe Context Diagram

Documentation

Model Components

The central process of the information system for the Danshe dance group is a website that will provide publicity and a point of contact for booking events.

The external entities of the system consist of the following:

- Director – The Danshe employee responsible for coordinating event requests, dancer availability and calendar/data availability.

- Clients – People who have shown a greater interest in the Danshe group and have registered client information on the Danshe website. Many of these clients have booked events. The clients review calendar information, receive booking request responses as output from the website, and submit photos, videos, testimonials and booking requests as input to the website.
- Guest – A visitor to the Danshe website and fan of the Danshe group.
- Web Administrator – A web professional responsible for necessary updates and requested design modifications for the Danshe website.
- Dancers – review event schedule information on the website as website output and submit videos and photos as input to the website.

MODEL ASSUMPTIONS

- A guest can be a client but a client is more than a guest
- The Danshe website will have email functionality
- Clients and guests can submit testimonials, photos and videos but the Director can update, change and remove them
- The Director has discretion over what is put on the website

Use Cases

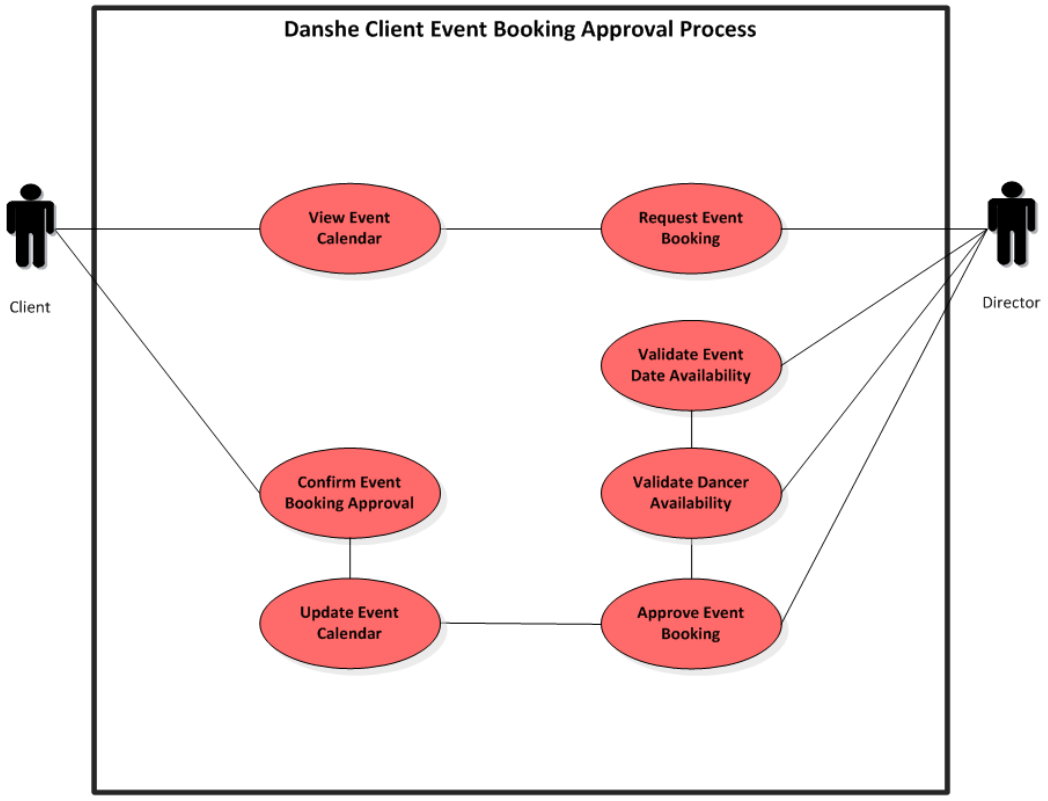
Description

A Use Cases represents the steps in a specific business function or process in UML (Unified Modeling Language). An external entity, called an actor, initiates a use case by requesting the system to perform a function or process. The UML symbol for a use case is an oval with a label that describes the action or event. The actor is shown as a stick figure, with a label that identifies the actor's role. The line from the actor to the use case is called an association, because it links a particular actor to an action within a use case.

The Use case diagram shown below is a visual summary of one use case that represents interaction between the actors and the system involved in the Danshe Client Event Booking Approval Process. Note – this use case only lists the steps to approve the

booking request. It does not list the steps followed if the booking request is denied approval.

Diagram



Danshe Use Case Diagram

Documentation

ACTORS:

Client

The client is a website visitor that has filled out an event booking form and submitted it to the website.

Director

The Director is a member of the Danshe group that has the responsibility of handling booking requests and other updates to the website.

USE CASE DESCRIPTIONS:

The client starts the use case by filling out an event booking form and submitting it to the website. Next, the Director receives the booking request and checks the event calendar to validate that the event date is available. Next, the Director checks for dancer availability. If the date and dancers are available, the event is approved, the calendar is updated with the new event and confirmation response of the event booking approval is sent back to the client by the Director.

MODEL ASSUMPTIONS:

- The Director has access to update the website event calendar
- The calendar is updated prior to confirmation
- The Director confirms the event booking approval by sending an email confirmation to the client

Activities

Description – UML Activity Diagram

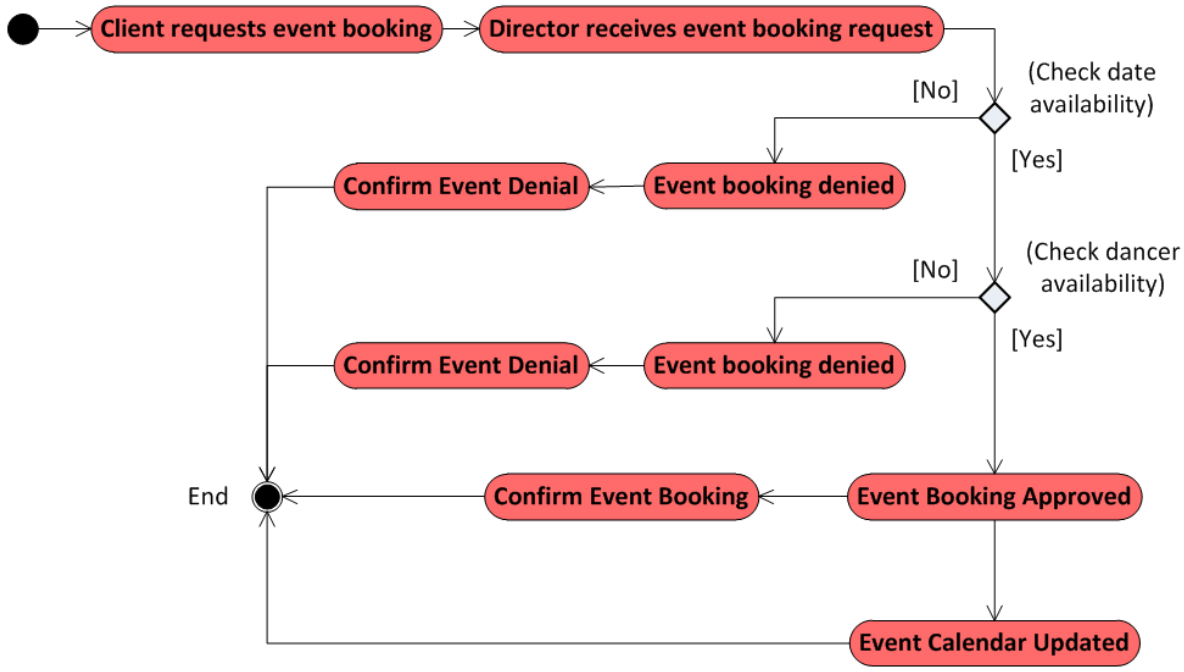
The Activity diagrams in this section are represented by a UML Activity diagram and an Event Response diagram. In general, UML Activity diagrams are graphical displays of workflows that include step-by-step activities and actions. They also represent decisions, iteration and concurrency. An Event Response diagram is similar, as it also represents actions, or responses to events within the system. Two major differences are the inclusion of actors and data stores in the Event Response diagram.

Both Activity diagrams for the Event Booking process represent the steps necessary to for a Danshe event to be booked for the client and added to the event calendar. The

system begins with the submission of a new booking request and is considered complete upon confirmation.

Each model describes how the business requirements of Danshe are being met for the booking of an event. Each step provides a brief description of the action or response that is necessary before moving to the next. These sequential steps flow toward the final destination – an event is confirmed.

Diagram – UML Activity Diagram



Danshe UML Activity Diagram for Event Booking Process

Documentation – UML Activity Diagram

MODEL DESCRIPTION – UML ACTIVITY DIAGRAM:

The UML Activity diagram represents each step of the Event Booking process for Danshe from initiation to completion. Initiation is marked by a solid-colored circle. Arrows

represent the direction of the workflow and lead to actions or decision points. Actions are displayed as an oblong shape and decisions are diamond shaped.

Action shapes display text describing each action and who takes that action. Descriptions are brief, providing a high-level view of the process. Text also describes the decision points within the system, each providing a “no” and “yes” option.

The completion point is marked with a target-like symbol, filled with a solid color.

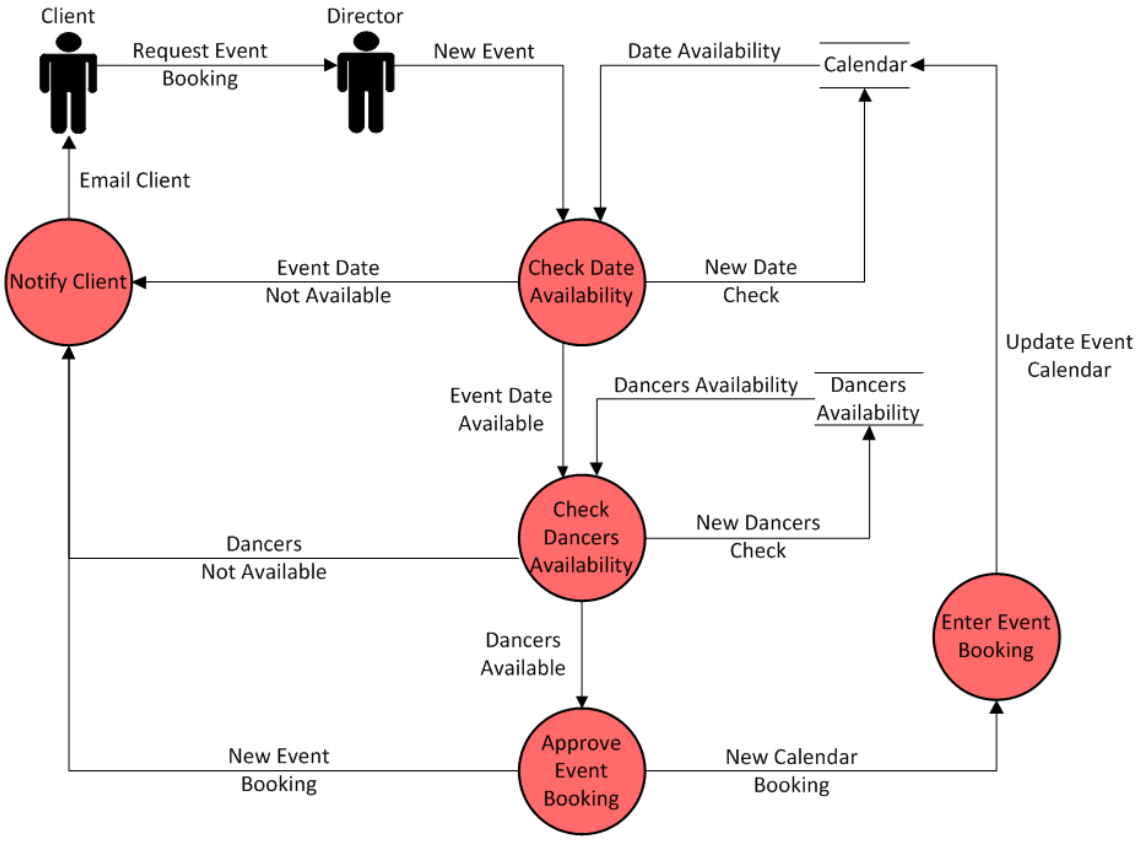
NARRATIVE DESCRIPTION - UML ACTIVITY DIAGRAM:

To start, the client requests an event booking from the website. Next, the Director receives the event booking request and moves on to the decision point – to check availability on the calendar. If the date the client requested is not available, the event booking is declined and an email is sent to the client to inform them the date they requested is unavailable and that they will need to choose a different date.

In the event the date is available, the Director then reaches another decision point – to check if dancers are available for the requested date. If they are not, the booking is declined and an email is sent to the client, informing them Danshe is unable to book the event due to prior engagements and to choose a different date.

If the dancers are available, the event is approved and the Director updates the calendar and sends a confirmation email to the client.

Diagram – Event Response Diagram



Danshe Event Response diagram for Event Booking Process

Documentation – Event Response Diagram

MODEL DESCRIPTION – EVENT RESPONSE DIAGRAM:

The Event Response diagram represents necessary steps of the Event Booking process for Danshe, from initiation to completion. Initiation begins with the actor who triggers the process, in this case, the Client. Actors are displayed as human figures. Arrows represent the direction of the workflow and lead to other actors, data stores, event responses or decision points. Event responses are displayed as circle shapes and decisions are diamond shaped.

Text is included in the event response shapes to briefly describe what action is being taken. Like the UML Activity diagram, descriptions are brief, providing a high-level view

of the process. Text also describes the decision points within the system, each providing a “no” and “yes” option.

Data stores are permanent storehouses of data. They can be any and all types of data structures such as a file or a database. Data stores in Event Response diagrams are represented with an empty box shape, with only a top and bottom line.

The completion point ends with the initial actor, displaying the process as complete and coming full-circle.

NARRATIVE DESCRIPTION – EVENT RESPONSE DIAGRAM:

At the beginning of the Event Booking process, within the Event Response diagram, the Client initiates the process by requesting an event booking. This request is received by the Danshe Director, who must check data and dancer availability. In both events, a response is taken based on the results of each outcome; Date and dancers are available or they are not. If they are not, the flow of work goes back to the client via an email from the Director, informing him or her that the booking request is declined and requesting them to choose a different date.

When the date and dancers are available, the Director sends a confirmation email to the client, and updates the data stores, event calendar and dancer availability database.

MODEL ASSUMPTIONS:

The following assumptions and business rules were gleaned from our meetings with Danshe employees and adhered to when creating each of the Activity models:

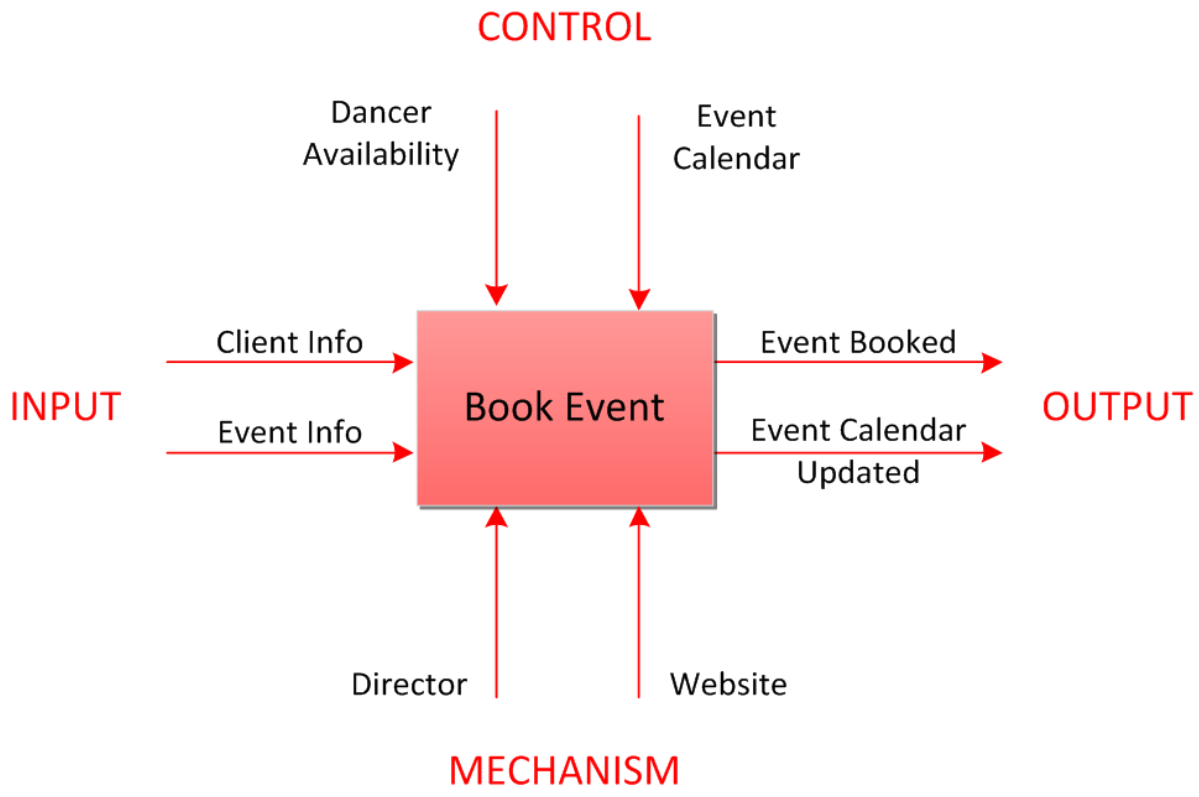
1. A client can request an event booking through the Danshe website.
2. The Danshe Director is responsible for verifying dancer and date availability before booking an event.
3. Upon verification of dancer and date availability, the Danshe Director updates the event calendar on the website and sends a confirmation email to the client.
4. If there is no availability for dancers or the requested date, a declining email is sent to the client, advising him/her to choose another date.

Conceptual Data Model

Description – IDEF0

The IDEF0 diagram documents an activity, process, or transformation that must be accomplished and defines the scope of the diagram. This process is represented by the rectangular box at the center of the graphic image. The IDEF0 method is designed to provide a high level model of the decisions, actions, and activities of an organization or system in order to establish the scope for a functional analysis. It does this by documenting the Inputs, Controls, and Mechanisms that affect the activity, process, or transformation at the center of the diagram and what the final Outputs of the system are.

Diagram



Documentation – IDEF0

DATA NEEDS OVERVIEW:

The Danshe website is intended to promote the dance group and to provide information about them and their scheduled events. One of the functions of the website will be to allow prospective clients to request and book the performance of the dancers at an event. This process is documented by the IDEF0 diagram, which defines the scope of the model by the activity or process identified in the central box. In this case, that activity is "Book Event".

ENTITY DEFINITIONS:

Inputs include any **Client Information** related to the Book Event process as well as the **Event Information** itself. These can include items such as the client name and contact information or the event date and location. (The information needs are further documented on the ERD diagram.)

Controls of the system determine which factors or constraints can affect the process of booking an event. In this instance, items such as **Dancer Availability** or previously booked events on the **Event Calendar** can determine whether a new event request can be accommodated.

The Mechanism determines what entities or systems influence or facilitate the activity in order to produce an output. For Danshe, the primary Mechanisms include the **Director** and the **Website**. The Director determines whether an event can be booked based upon the input received and the controls that are in place. This process is facilitated through the use of the Danshe Website.

The Output of the system is determined by the Inputs, Controls, and Mechanisms and is the result of how they act upon the process. In order to book an event, client and event information must be received by the director through the Danshe website. This information is analyzed using the controls of the system to determine whether the event date is available and whether the dancer's schedules will allow them to perform at the event. If all of these actions and decisions are favorable, then the Output of the system will be an **Event Booked** and an **Event Calendar Updated** that documents the new event booking.

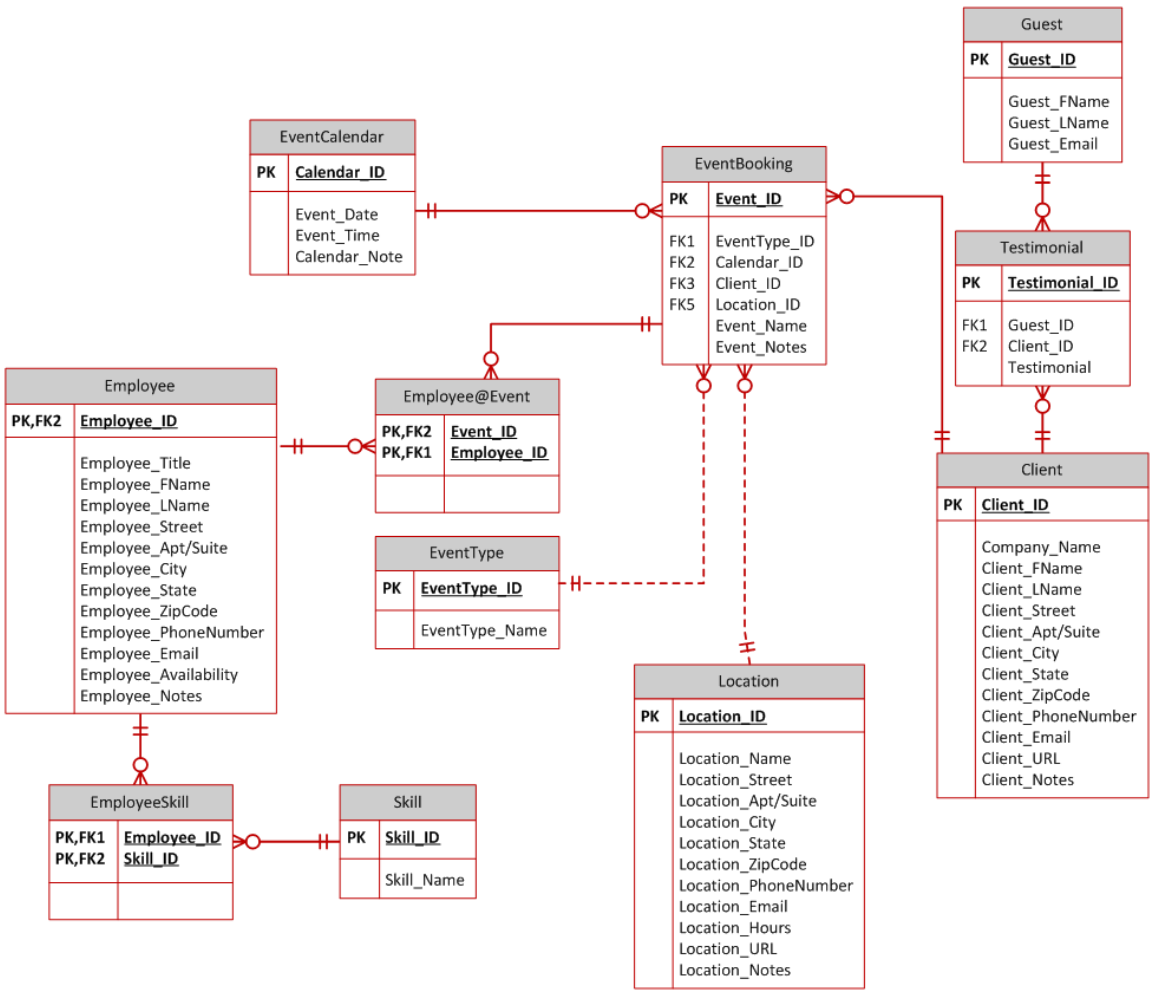
MODEL ASSUMPTIONS:

1. The client must provide information about themselves and the event to initiate and event booking.
2. The Director processes the event booking process.
3. An event date and the dancer's schedule must be available in order to book an event.
4. The Event Calendar will be updated when an event is booked.

Description - ERD

The Entity-Relation Diagram (ERD) is a conceptual representation of data used to document the model of a system or relational database. Depending upon the level of complexity, an ERD can be used to define the entities of a system, the attributes of those entities, how those entities relate to one another, and what cardinality those relationships have. ERD's can provide a simple, high level overview of a system while more detailed versions can be used to instantiate the metadata of a relational database system.

Diagram - ERD



Danshe Entity Relationship Diagram

Documentation

DATA NEEDS OVERVIEW:

The Danshe website needs to facilitate the acquisition of data related to specific customer interactions such as booking events and providing testimonials. It will also need to maintain information about the dance group's employees and event calendar. The ERD diagram documents the metadata entities and attributes that will need to be

gathered, referenced, and updated in order to maintain the website functionality and to enact and promote Danshe event scheduling.

ENTITY DEFINITIONS:

The following entities and their attributes are defined on the Danshe ERD:

Employee
The Employee table documents the Danshe groups' employees and their roles, such as dancers, director, etc. The attributes identify pertinent data about the employees that would need to be maintained in order to establish availability, scheduling, and contact information.

EmployeeSkill
The EmployeeSkill table is a linking table that is used to link multiple skills between multiple employees.

Skill
The Skill table is used to identify dance skills and techniques that each dancer is familiar with and capable of performing.

Employee@Event
The Employee@Event table is a linking table that is used to link multiple employees between multiple events.

EventType
The EventType table documents the types of events that bookings can occur at. (ex. holidays, fairgrounds, weddings, etc.)

EventCalendar
The EventCalendar table is used to identify the date and time of an event.

EventBooking
The EventBooking table is used to define the pertinent information that is required to establish an event booking. This table draws on data stored in other tables to identify the client, location, and date of an event, as well as providing a way to uniquely identify the event and any special notes or requirements that need to be maintained.

Location

The Location table identifies the venue of the event and related information such as address and contact information.

Client

The Client table identifies information about the customer who has booked an event, including data such as their name, address, contact information, and, if applicable, the company they represent.

Testimonial

The Testimonial table is used to maintain information about each testimonial provided, such as who provided it, their status (client/guest), and the actual testimonial content.

Guest

The Guest table is used to maintain information about guests to either the Danshe website or who have attended scheduled events and wish to provide testimonials about the dance group.

MODEL ASSUMPTIONS:

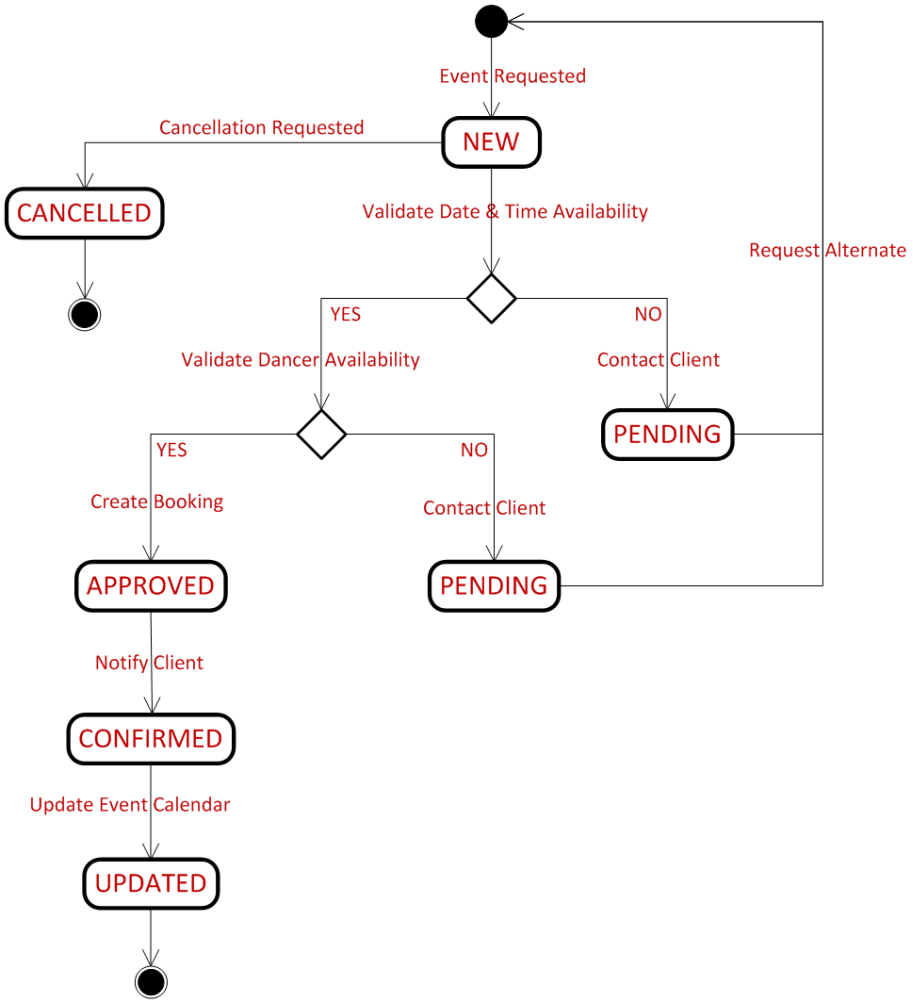
1. Guests and Clients can provide testimonials.
2. There can be many employees booked at an event.
3. An event booking must have a client, location, event type, and calendar.
4. An employee can have many skills.
5. There can be many events booked for one day, but only one event booked for a specific time on a specific day.

State Transitions

Description

State-transition diagrams describe all of the states that an object can have, the events under which an object changes state (transitions), the conditions that must be fulfilled before the transition will occur (guards), and the activities undertaken during the life of an object (actions). State-transition diagrams are very useful for describing the behavior of individual objects over the full set of use cases that affect those objects.

Diagram



Danshe State Transitional Diagram

Documentation

ENTITY DESCRIPTION:

The entity being modeled is *Booking an Event.*

LIST OF EVENTS:

Event requested – begins the booking process Validate day & time – review of the event calendar

Validate dancer availability – review the dancers schedule

Contact Client – email is sent to the Client to confirm the booking of the event

Create booking – the event calendar is updated with event details

LIST OF STATES (STATUS):

New – a booking request has been received.

Pending – validating availability

Approved – date, time & dancers are available

Confirmed – Client is contacted

Updated – event is entered on the event calendar

Cancelled - Client no longer wishes to book an event

MODEL ASSUMPTIONS:

For this diagram, it is assumed that when a booking request is received and Danshe is unable to approve the event due to date or dancer unavailability, The Director will work with the Client to select alternative times.

Appendices

Glossary

Term	Definition
Employee	Any employee of the Danshe group.
Client	Includes new and pre-existing customers of Danshe.
Conceptual Data Model	A map of concepts and their relationships, describing the things of significance to an organization, the things it needs to collect information about - and the relationships between the two.

Context Diagram	A high-level, informal view of the system for which requirements are being gathered, things that need to interact with the system, and noted interactions between each entity and the system.
CRUD Matrix	A table that correlates system actions with data entities to show where each data item is created, read, updated and deleted.
Director	The Danshe employee responsible for coordinating event requests, dancer availability and calendar/data availability.
Entity Relationship Diagram (ERD)	A graphical representation of the entities, and the relationships between the entities, within a information system.
Event Booking	A confirmed event request from a Danshe client.
Guest	A visitor to the Danshe website and fan of the Danshe group.
IDEF0	Integration Definition for Process Modeling, a public-domain methodology used to model businesses and their processes so they can be understood and improved.
IDEF0 Diagram	The IDEF0 diagram documents an activity, process, or transformation that must be accomplished and defines the scope of the diagram.
State Diagram	Used to describe the behavior of a system, they describe all of the possible states of an object as events occur. Each diagram usually represents objects of a single class and tracks the different states of its objects through the system.
Swimlane Diagram	Also sometime called a cross-functional diagram, it documents the steps or activities of a process flow or workflow. More specifically, a Swimlane diagram groups these activities into Swimlane, which are horizontal or vertical columns that contain all of the activities that fit into the category represented by that Swimlane.
Use Case	A description of an interaction between an actor and a system that results in an outcome that provides value to the actor.
Use Case Diagram	An analysis model that identifies the actors who can interact with a system to accomplish valuable goals and the various use cases that each actor will perform.
Web Administrator	A web professional responsible for necessary updates and requested design modifications for the Danshe website.

Meeting Notes

<JAD session notes go here>

Forms, Documents, etc…

http://dansheseattle.blogspot.com/

Danshe – Wall on Facebook

10 Things Every Small-Business Website Needs

Top Web Design Tips for Small Business Owners

5 Web Design Tips for your Business Website

Thompson, Carla L. "Scaling the Zachman Framework: A Software Development Methodology for Non-Enterprise Applications."
http://adr.coalliance.org/codr/fez/eserv/codr:711/RUETD00042.pdf

Questions for the client

1. We are under the impression that the website was initially intended to establish an online presence to promote the dance group; does Danshe want the option to accept payments/deposits on the website?
2. What information, if any, does Danshe want to maintain about website guests? Name, email, number of visits/site hits, etc.?
3. When an event is requested for a specific date and time that cannot be accommodated, how will Danshe process the request? Will it be considered a closed request after the client is informed the date and time is unavailable and subsequent alternate date and time requests for the same event will be considered separate requests? Or will the status of the event request be held as "Pending" until the client and Danshe can come to a mutual agreement for the date/time for the event?
4. Does Danshe want the website to allow for each dancer to have a "professional" email account through the website (i.e. tarynfarley@danshe.com?

5. Does Danshe want to limit who can send videos/photos to the director for review and upload to the website? Would they want just Dancers and Clients to be able to do this, or guests as well?

6. Considering Fan testimonials, does Danshe prefer they go through a review before they are visible on the website? Or have Fans post their testimonials so they are immediately visible upon submission of the testimonial?

Initial Interview Questions for the Client

What (Data)

What things do you need to keep track of? - How are they being tracked currently?
Do you need other tools than a website?
What is the purpose/goals of your website?

How (Function/Process)

Can you describe how you operate as a business now?
What processes do you have in place?
Do you use spreadsheets or Google tools to keep track of customers or events?
How did you go about getting your performances on 3/17 or other past gigs?

Where (Network)

Are you involved with any other Dance companies or organizations?
Is there a need to share or be a part of another website?

Who (People)

Will you need to track anything by person?
What do you want to keep track of about customers?
Do you want information on the people who visit your website?
Who are the stakeholders?
Is there a primary contact for your group; who should we contact and how?

When (Time)

Obviously scheduling performance and audition events are important.
How do you charge for events?
Is there a deadline or time constraints?

Why (Motivation)

(Q#1) What is your business objective, mission and values?
Do you have a business plan?
What is the business need?

Danshe PowerPoint Presentation

A
JAD
Process
Modeling
Session

June 15, 2012

By ModelThis