

Design

Introduction to Design

Design is an important phase of development process in which developers develop the system based on the specific requirements and needs of their customers.

Structural Design/Model

Structural design which is mostly based on mathematical model, statistical model as well as the computer algorithms.

Final Class Diagram

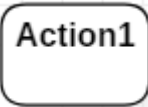


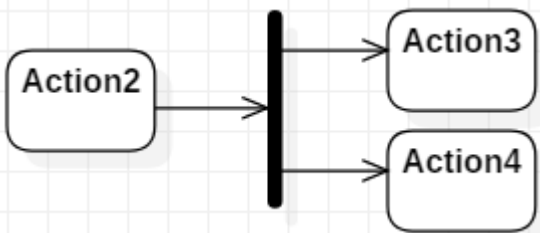
A Class Diagram is a static diagram which shows a static representation of a system. It involves structures like Classes, Attributes and Operations. It also shows the relationship between all the classes within the system.

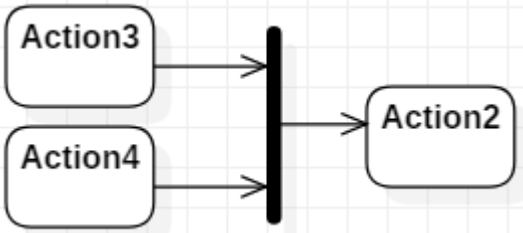


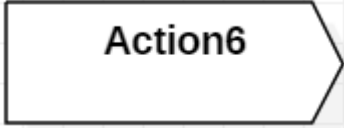
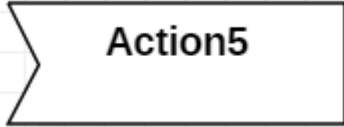
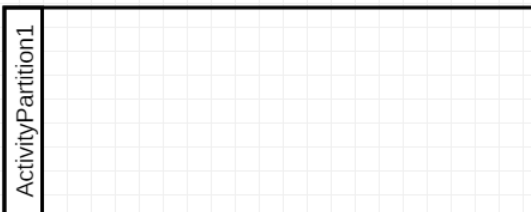
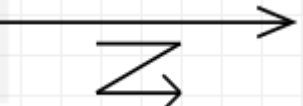


Behavioral Model

Behavioral Model are basically a dynamic model which shows how the system responds according to the actions performed from the environment or users.

Activity Diagram

Activity Diagram is an important behavioral diagram which narrates the dynamic aspects of the system. It is an advanced version of flow chart which is used to represent the flow from one activity to the other.

Notation Used	Notation	Description
Action		Shows what activity is done
Initial		Shows the starting of the activity
Final		Shows the ending of the activity
Fork		Splits one flow into multiple flow

Join		Joins two actions into one
Decision		Decides the condition
Control Flow		Shows the flow of activity
Send Signal		Sends message through the system
Accept Signal		Receive message sent from the system
Swimlane		Group related activities into one column vertical or horizontal
Activity Interrupt		Interrupts the flow of the activity with a lightning bolt
Accept Time Event		Event which stops the flow of an activity for a certain specific time
Interruptible Activity Region		Activity terminated if interruption occurs.

Here are all of my activity diagrams:-

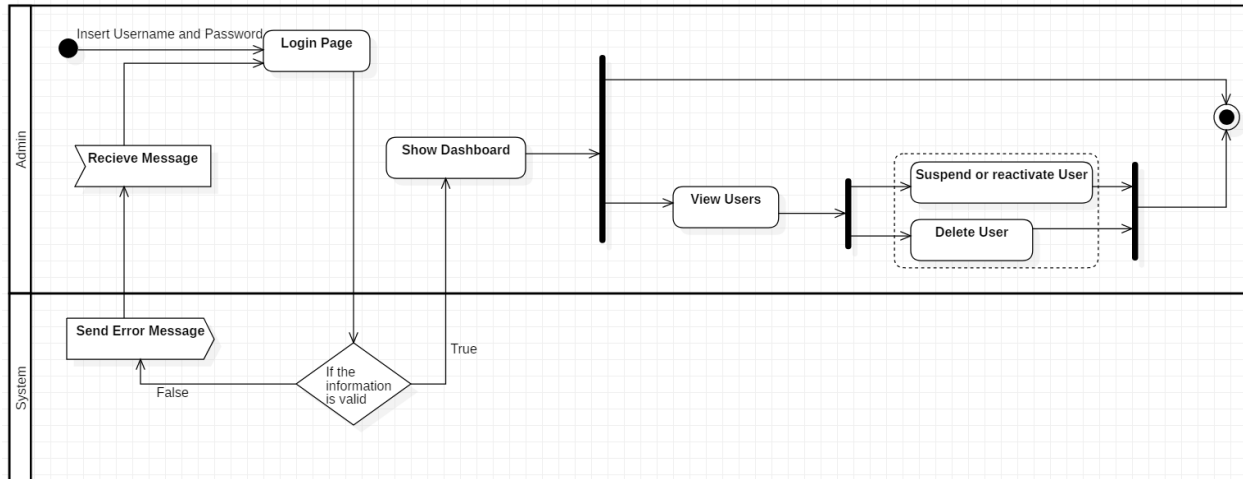


Figure 1 Admin Login Activity Diagram

The above activity diagram is about how an admin of the system works and can operate its functions. First admin opens up a login page where he/she provides the required information i.e username and password, if the provided information is incorrect the system sends a error message to the login page(Looping is done if information is not correct). If provided information is correct the admin is redirected to the admin dashboard where he can view users and can suspend,delete as well as reactivate users.

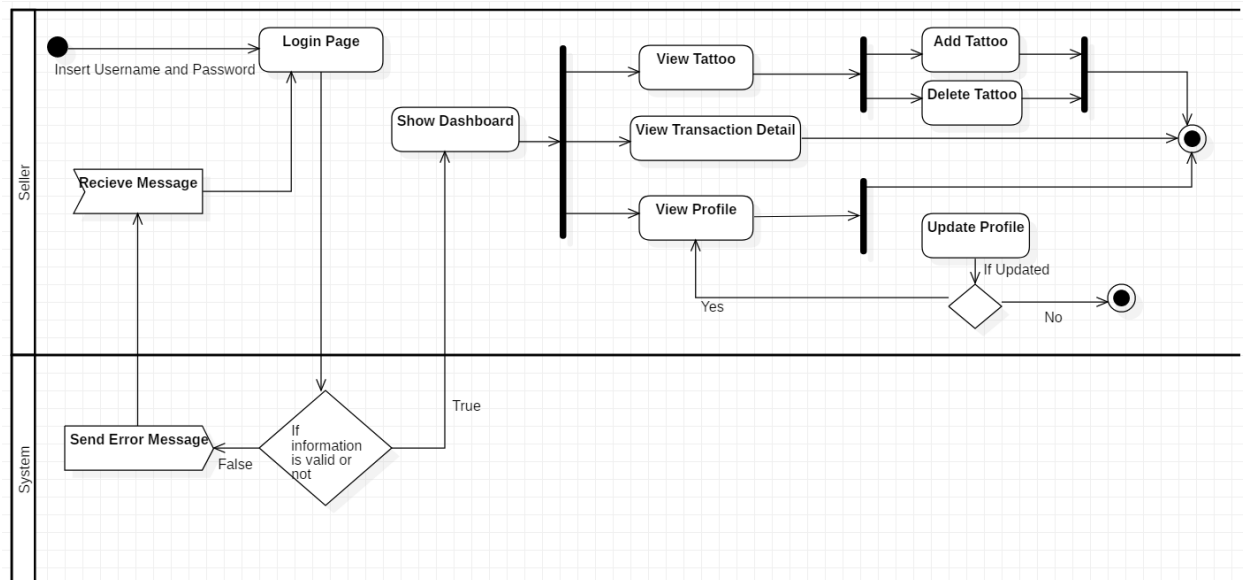


Figure 2 Artist Login Activity Diagram

The above activity diagram is abot how an seller (which is a artist) of the system works and can operate its functions. First seller opens up a login page where he/she provides the required information i.e username and password, if the provided information is incorrect the system sends a error message to the login page(Looping is done if information is not correct). If the provided information are correct the artist is redirected to the artist dashboard where he/she can view

tattoos, view transaction details and view profiles. In tattoos artist can delete as well as add tattoos and artist and update their profile as well as upload a photo.

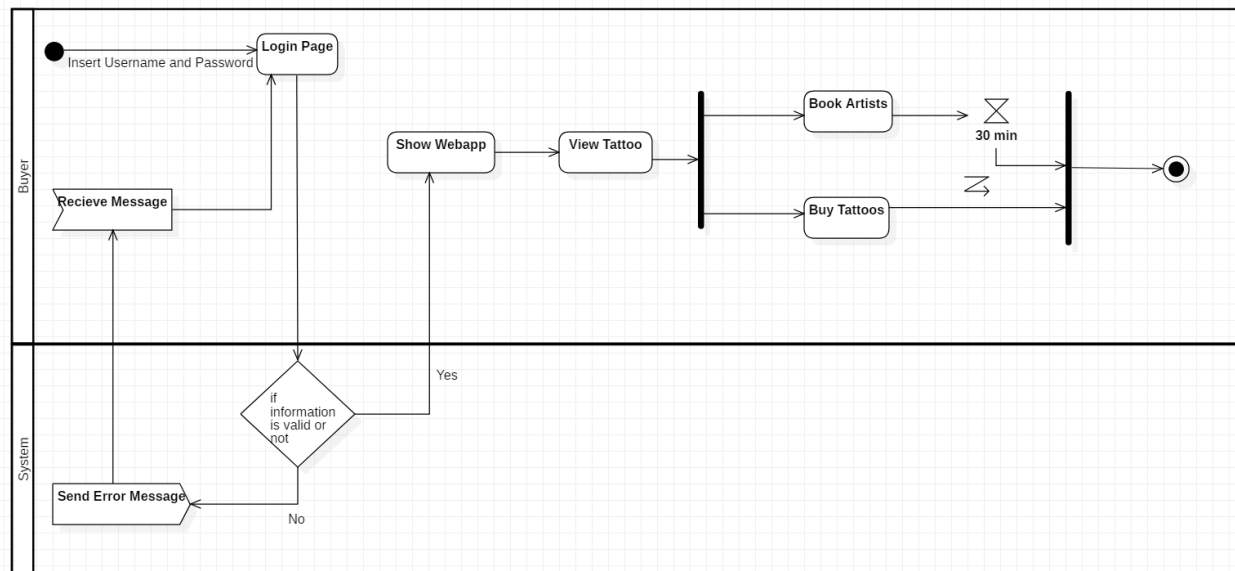
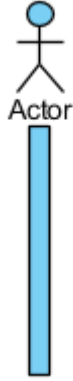

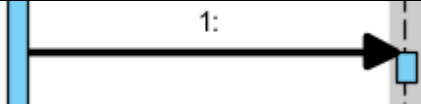
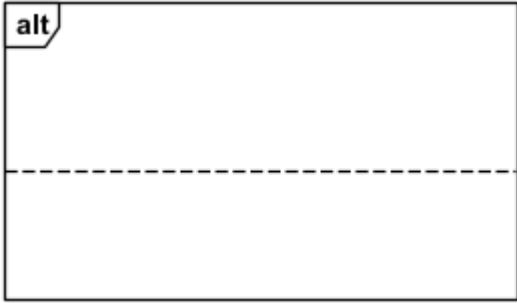
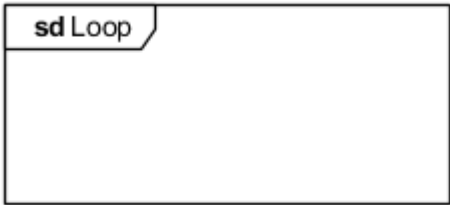


Figure 3 User Login Activity Diagram

The above activity diagram is about how a Buyer (which is a normal user) of the system works and can operate its functions. First, the buyer opens up a login page where he/she provides the required information, i.e. username and password. If the provided information is incorrect, the system sends an error message to the login page (looping is done if information is not correct). If the provided information is correct, the user is redirected to the webapp where he/she can view a tattoo and buy it as well; users can also book artists in the artist section.

Sequence Diagram

Sequence Diagram is a diagram which shows how actors interact with objects in a sequential order. It shows how and what order the objects in the system function.

Notation Used	Notation	Description
Actor		It is an entity which interacts with the objects of the diagram.
Lifeline		It interacts with other objects during the sequence.
Message Arrow		Shows the flow of the diagram.
Alternate Frame		It is if else statement.
Loop Frame		It is a loop statement used for repetition of a part.

Here are my sequence diagrams: -

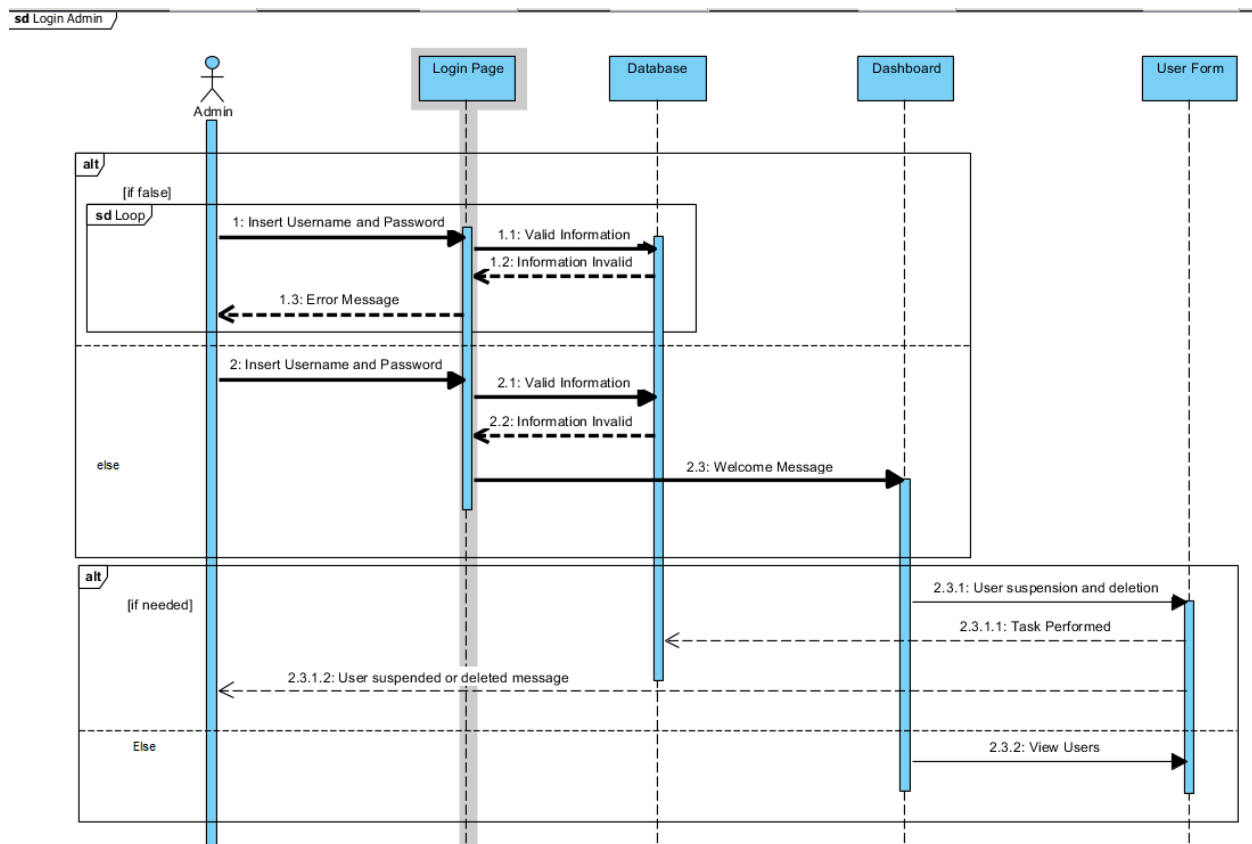


Figure 4 Admin Login Sequence

The above sequence diagram is about how a admin logs into the system. First the admin enters the login page where he/she provides the required information. If correct then admin is redirected into the admin dashboard where admin can suspend, reactivate as well as delete users.

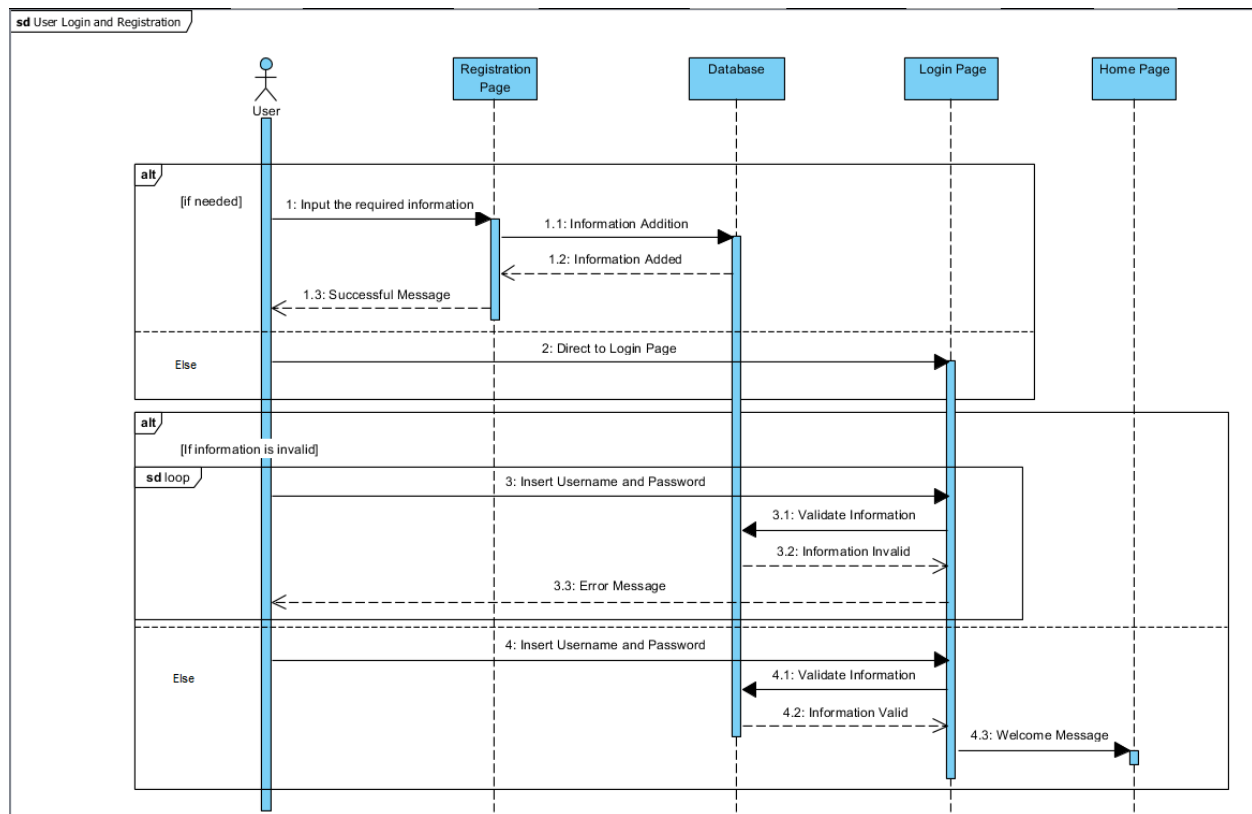


Figure 5 User Register and Login Sequence

The above sequence diagram is about how a User registers itself and logs into the system. First the user enters the registration page where he/she provides the required information which is then stored into the database. Then user is redirected to the login page where he/she provides the required information. If correct then user is redirected into the home page of the webapp where user can view tattoos and artists as well as buy tattoos and book artists.

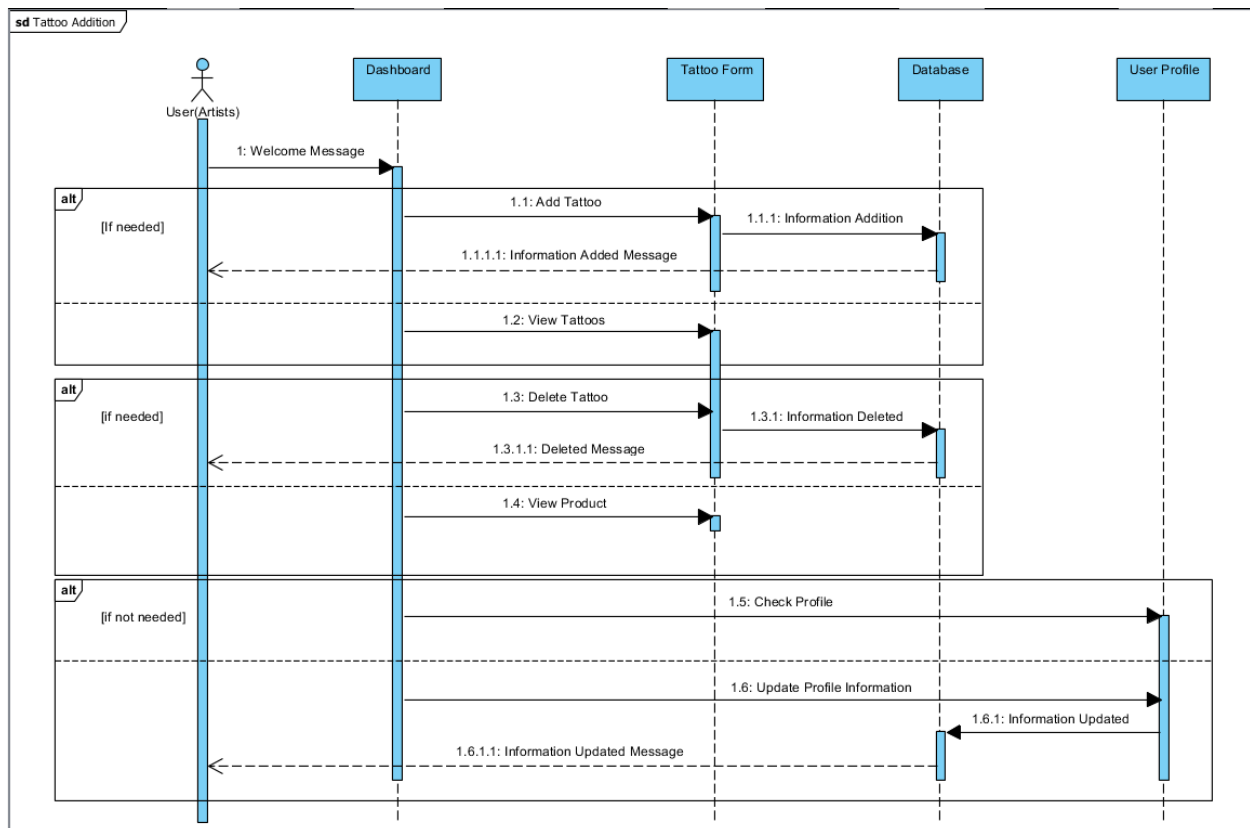


Figure 6 Tattoo Sequence

The above sequence diagram is about how a Artist adds tattoos into the system. First the artist enters the artist dashboard from there artist enters the view tattoo page where artist can find a tattoo form from which the artists can add tattoos which is stored in the database, artists can delete their tattoos as well but cannot delete other artists tattos. Here artists can check their profile and add information about them or update details or even add photos.

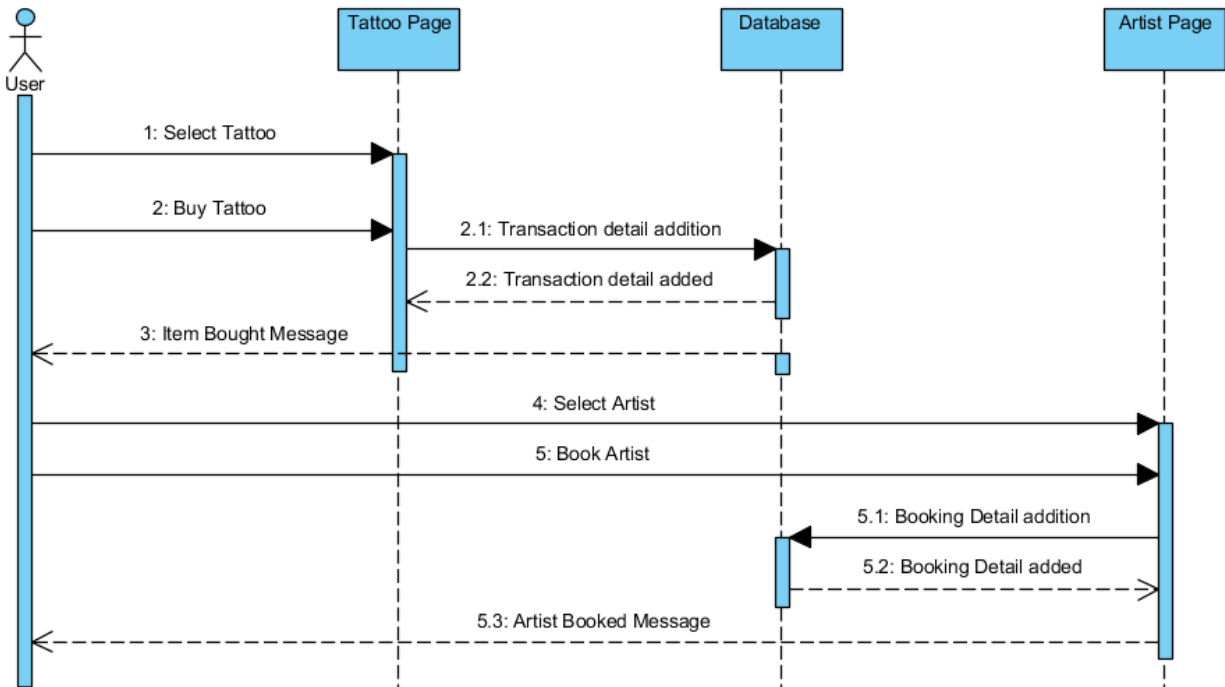


Figure 7 Buying Sequence

The above sequence diagram is about how a user can buy tattoos and book artists from the system. For buying tattoo first the user enters the tattoo page where all the available tattoos are shown from their user can select one and buy it. From there the transaction details are stored and bought message is sent to the user. Now for booking artist first the user enters the artist page where all the available artists are shown from their user can select one and book it. From there the booking details are stored and booked message is sent to the user.

Database Model

It is a logical structure which is used to determine how data in the system is stored, manipulated, processed and organized.

Data Dictionary

Data dictionary is simply a repository of metadata which is a set of files which stores all the collection of tables with metadata. It also contains relationship to other data.

Table Name	Attributes	Datatype	Length	Primary Key	Foreign Key	Nullable
User(Normal and Artist)	Uid	int		Yes	No	No
	FirstName	varchar	20	No	No	No
	LastName	varchar	20	No	No	No
	Address	varchar	50	No	No	No
	Email	varchar	100	No	No	No
	Username	varchar	30	No	No	No
	Password	varchar	25	No	No	No
Tattoo	TattooId	int		Yes	No	No
	TattooName	varchar	50	No	No	No
	TattooDetail	varchar	500	No	No	No
	Price	float		No	No	No
	Quantity	int		No	No	No
	Uid	int		No	Yes	No
Payment	PaymentId	int		Yes	No	No
	PaymentTime	Time		No	No	No
	PaymentDate	Date		No	No	No
	PaymentWay	varchar	50	No	No	No
	Uid	int		No	Yes	No
Booking	BookingId	int		Yes	No	No
	BookingDate	Date		No	No	No
	BookingTime	Time		No	No	No
	Uid	int		No	Yes	No

Figure 8 Data Dictionary

ER Diagram

ER diagram is a diagram which shows the relationships between all the entities within the system. A ERD consists of entities with its attributes and relationship between the entities.

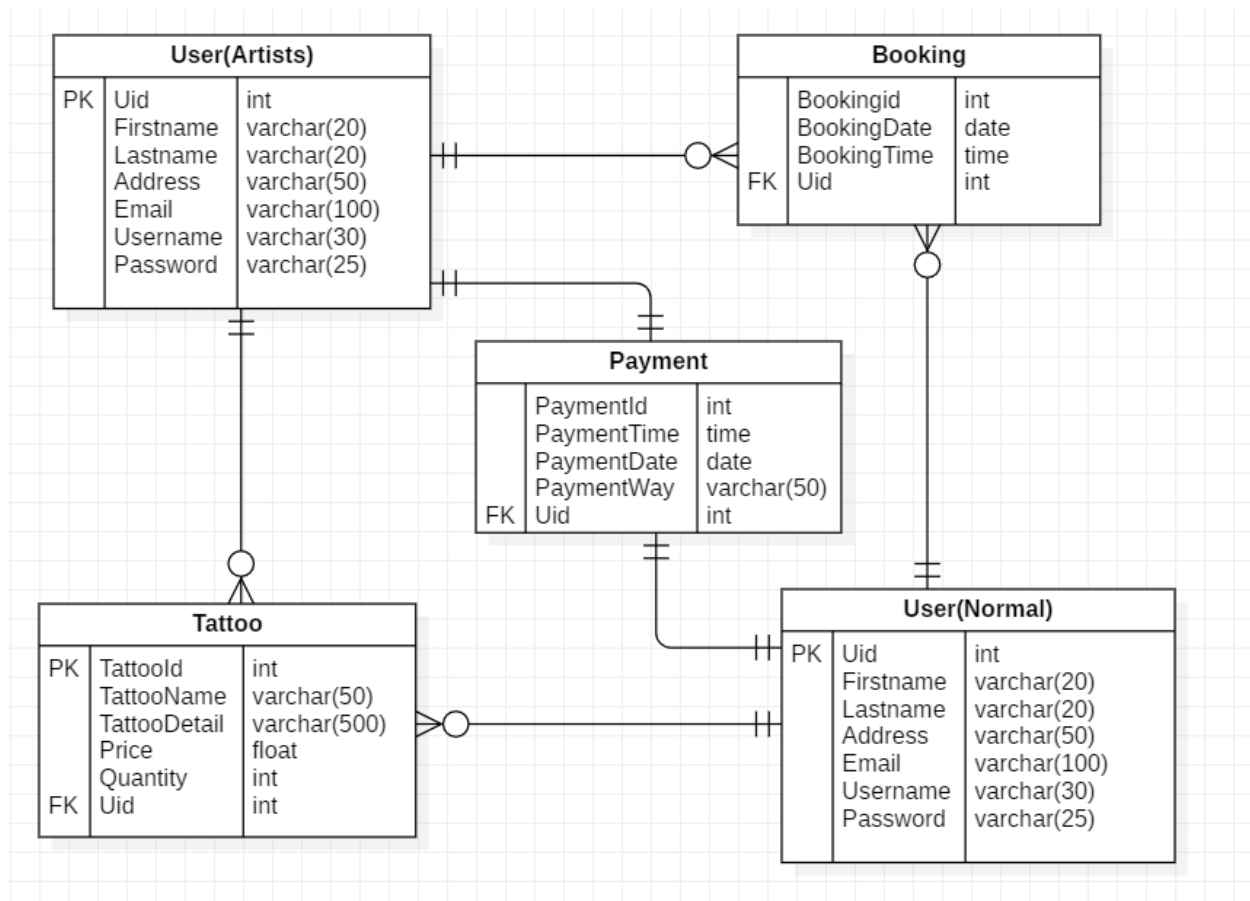


Figure 9 ER Diagram

Architectural Model

Architectural model is mainly known as the blueprint of the system as it contains both the elements of structural model as well as behavioral model. For this system I have follow MVC pattern and it follows a 3-tier architecture such as:

1. Model
2. View
3. Controller

UI Modeling

User interface modeling is a development technique used by computer application developers.

Prototyping

Prototype is a rough sketch which shows how the project will look in the future and It will be used as a basis to create that software. There are many types or categories of prototyping but the most commonly used is paper prototyping as it can be done very easily. Here is my prototype of the web app: -

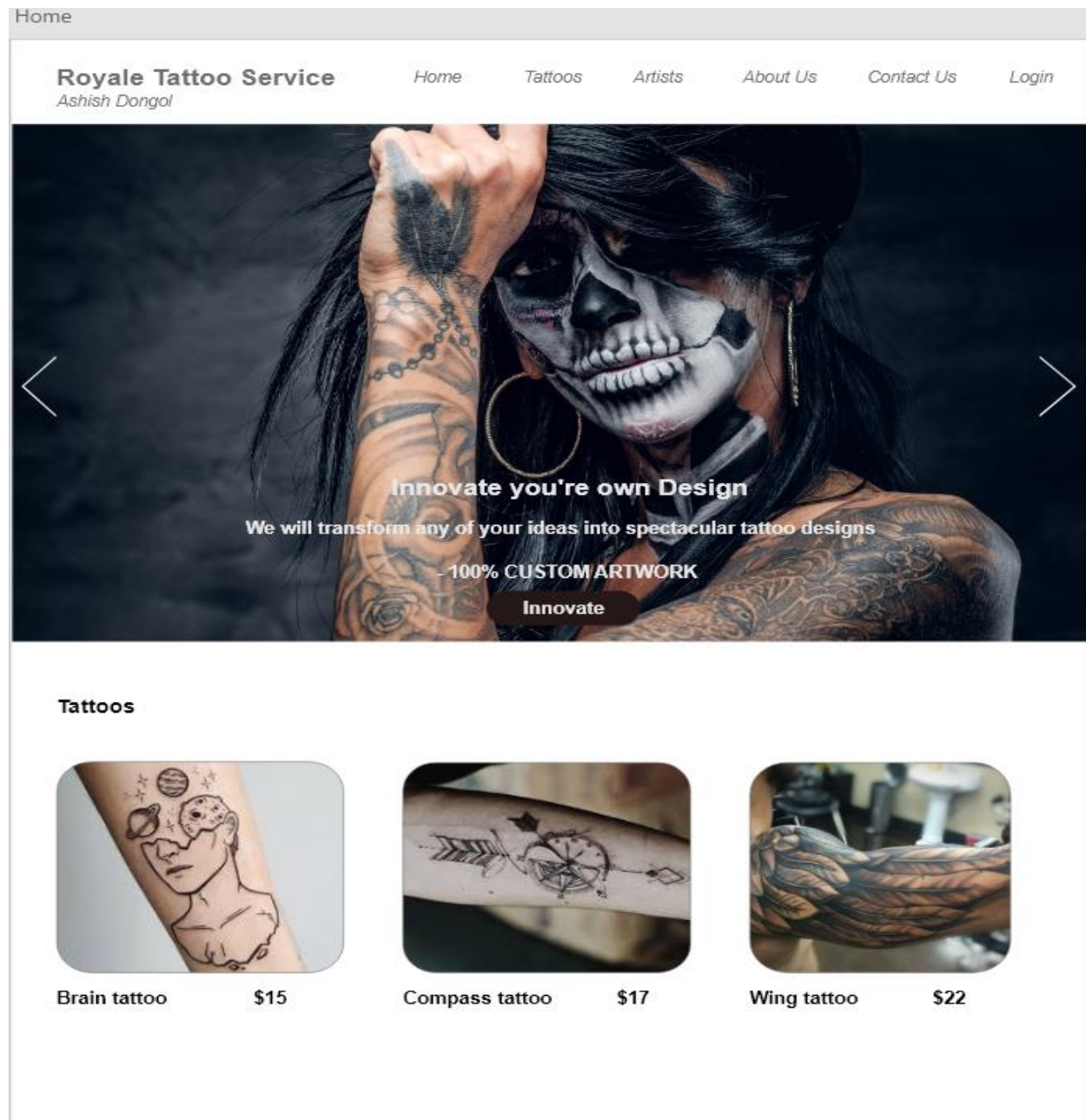


Figure 10 Home Page

Login

Royale Tattoo Service
Ashish Dongol

Home Tattoos Artists About Us Contact Us Login

Username

Password

Login

Don't have an account Sign Up now

Sign Up

Figure 11 Login Page

First Name

Last Name

Email

First Name

First Name

Username

Password

Sign Up

Figure 12 Registration Page

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[Home](#)

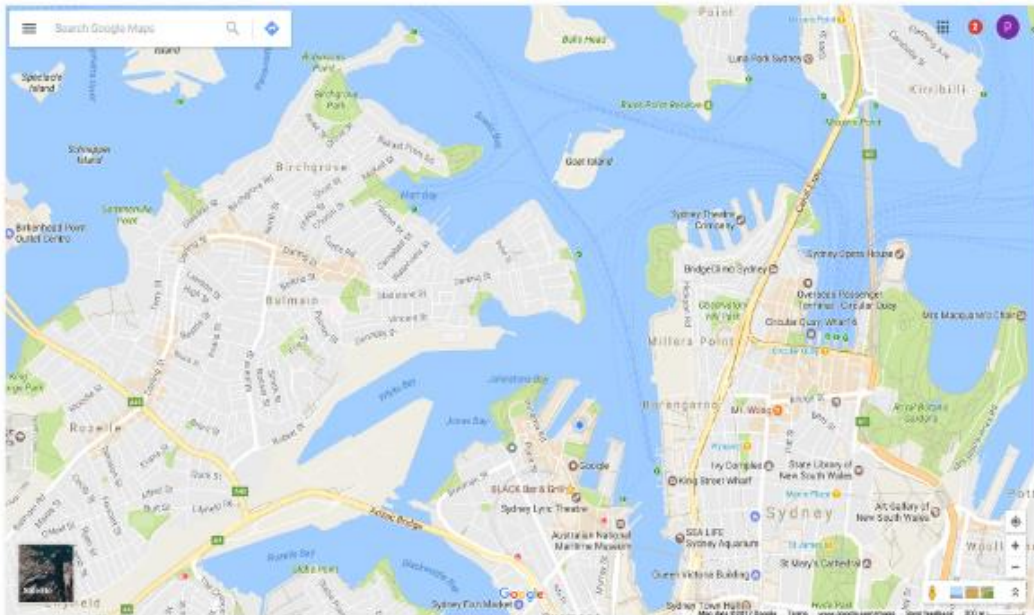
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Contact Us

500 bafal
Kathmandu
Nepal

Contact Form

Figure 13 Contact Us Page

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Tattoos



Brain tattoo

\$15



Compass tattoo

\$17



Wing tattoo

\$20



Scully Rose

\$15



Monkey Glasses

\$17



Beach Tattoo

\$20

Figure 14 Tattoos Page

Royale Tattoo Service

Ashish Dongol

[Home](#)[Tattoos](#)[Artists](#)[About Us](#)[Contact Us](#)[Login](#)**Artists**

Paul Booth is a tattoo artist, sculptor, painter, filmmaker and musician living in New York City. Booth is known for his use of black and grey ink tattoo work depicting dark surrealism styled pieces. He has gained a cult-like following around the world and has had such celebrity clientele which include members of many rock bands such as Slipknot, Mudvayne, Slayer, Pantera, Soulfly, and Sepultura.

Mark Machado, better known as Mr. Cartoon or more commonly just Cartoon, is a Mexican American tattoo artist and graffiti artist based in Los Angeles, California. Since the age of eight, Mr. Cartoon realized he was an artist and went on his first paying art job at the age of twelve. Having grown up in the Harbor area of Los Angeles County, young Cartoon began airbrushing T-shirts and Lowrider cars before adopting the legendary[citation needed] "Fineline Style" tattoo art, which was developed in the California prison system.



Katherine von Drachenberg, known as Kat Von D^{[1][2]} (born March 8, 1982),^[3] is an American tattoo artist, model, musician, author, entrepreneur, and television personality. She is best known for her work as a tattoo artist on the TLC reality television show *LA Ink*, which premiered in the United States on August 7, 2007, and ran for four seasons. She is also known for her cosmetics line that launched in 2008.

Figure 15 Artists Page

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About Us

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque sed lobortis risus, non rutrum nisi. Praesent pulvinar odio viverra eros posuere malesuada. In finibus tellus id tortor tempus, id dignissim lacus placerat. Donec nec luctus sem, eu vestibulum diam. Ut sed tortor ut enim convallis porta. Integer luctus, nisi ut semper hendrerit, orci magna accumsan purus, non ultricies sapien est ac urna.

Portofolio



Figure 16 About Us Page



Admin Profile

View Tattoos

View User

Suspend
User

Delete User

View Artists


Change User

Log Out

View User

UId	First Name	Last Name	Address	Phone No
1	asd	vfv	street	1233
2	asd	ghhf	home	4134
3	ZXCV	hg	ffsfs	4314
4	ZXCV	hero	ffdf	41234
5	faf	eco	fsf	45
6	vzv	bad	zvcx	76573

Figure 17 Admin Dashboard



Admin Profile

View Tattoos

View User

Suspend User


Delete User

View Artists


Change User

Log Out


View Tattoos




Brain tattoo \$15




Compass tattoo \$17




Wing tattoo \$20



Scul Rose \$15




Monkey Glasses \$17



Beach Tattoo \$20

Figure 18 Admin View Tattoos



Admin Profile

View Tattoos

View User

Suspend User

Delete User

View Artists


Change User

Log Out

View Artists

UId	First Name	Last Name	Address	Phone No
1				
2				
3				
4				
5				
6				

Figure 19 Admin View Artists



Admin Profile

View Tattoos

View User

Suspend User

Delete User

View Artists

Change User

Log Out

Delete Form


Username

Comment

Reason for deletion

Delete

Figure 20 User Delete Form


Admin Profile

View Tattoos

View User

Suspend User

Delete User

View Artists

Change User

Log Out

Suspend Form


Username

Comment

Reason for ban or suspension

Suspend

Figure 21 User Suspend Form



Admin Profile

View Tattoos

View User

Suspend User

Delete User

View Artists

Change User

Log Out


Change User

Username

Change into Artist

Change User

Figure 22 Change User Form



Admin Profile

View Tattoos

View User

Suspend User

Delete User

View Artists

Change User

Log Out

First Name

admin

Last Name

admin

Address

adminhouse

Phone No

9846846

Email

admin@admin.com


Gender

Male

Update Profile

Upload Photo

Figure 23 Admin Profile



Admin Profile

View Tattoos

View User

Suspend User

Delete User

View Artists

Change User

Log Out

Update Profile

First Name

Last Name

Address

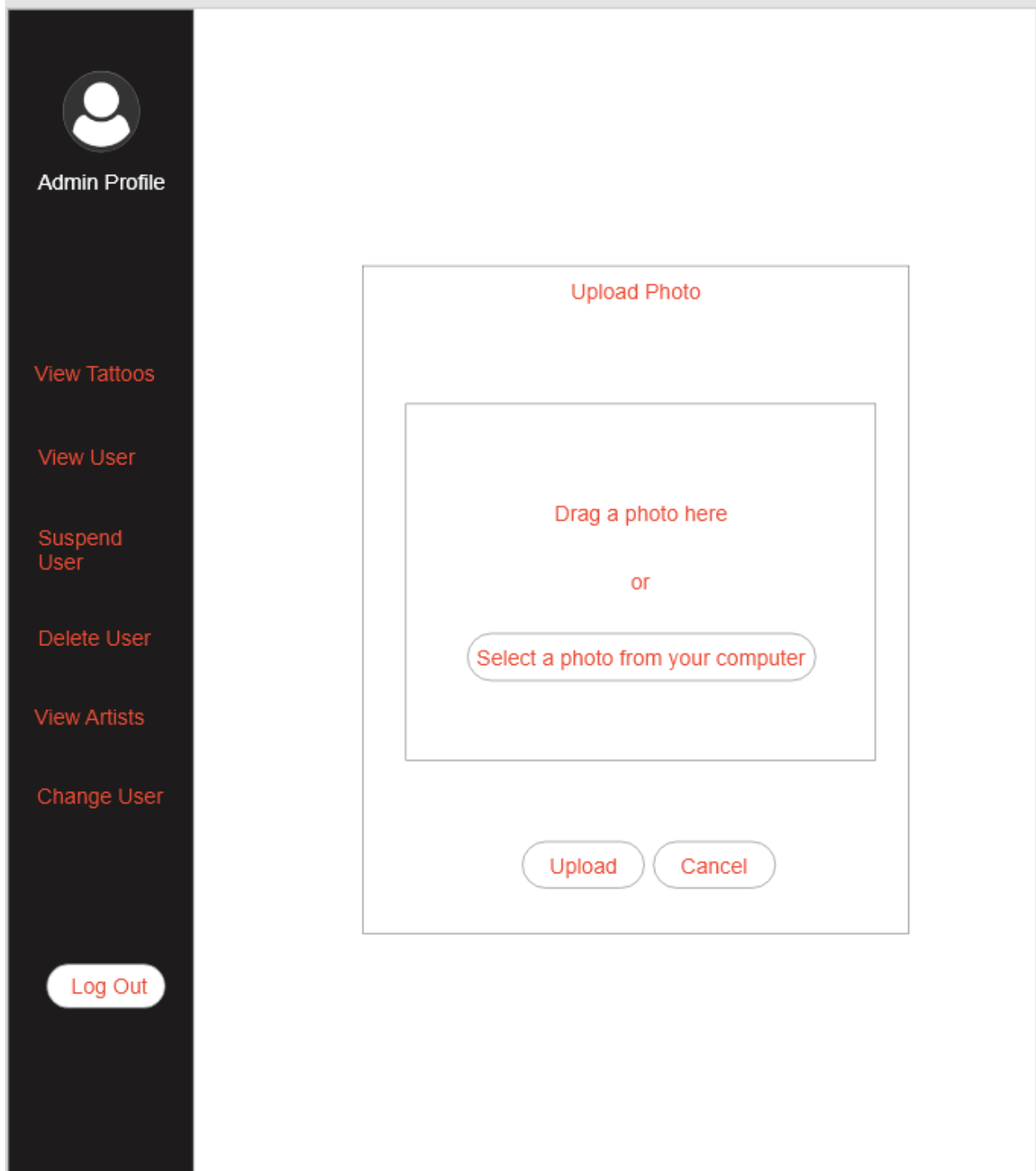
Phone No

Email

Gender

Update

Figure 24 Admin Update Profile



The image shows a web application interface for an Admin Dashboard. On the left is a dark sidebar with a user profile icon and the text "Admin Profile". Below this are several menu items: "View Tattoos", "View User", "Suspend User", "Delete User", "View Artists", and "Change User". At the bottom of the sidebar is a "Log Out" button. The main content area is white and contains a "Upload Photo" form. The form has a title "Upload Photo", a large rectangular area with the text "Drag a photo here" and "or" below it, and a button "Select a photo from your computer" inside the area. Below the area are two buttons: "Upload" and "Cancel".

Admin Profile

View Tattoos

View User

Suspend User

Delete User

View Artists

Change User

Log Out

Upload Photo


Drag a photo here

or

Select a photo from your computer

Upload Cancel

Figure 25 Upload Photo Form



User Profile

Transaction Details

Apply for

Log Out

Royale Tattoo Service

Ashish Dongol


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First Name	User
Last Name	User
Address	Userhouse
Phone No	25126
Email	User@user.com
Gender	Male

Update Profile

Upload Photo

Figure 26 User Dashboard



User Profile

Transaction Details

Apply for

Log Out

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Ashish Dongol

Update Profile

First Name

Last Name

Address


Phone No

Email

Gender

Update

Figure 27 User Update Profile Form



User Profile

Transaction Details

Apply for

Log Out

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Ashish Dongol

Upload Photo

Drag a photo here


or

Select a photo from your computer

Upload

Cancel

Figure 28 User Upload Photo


User Profile

Transaction
Details

Apply for

Log Out

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Ashish Dongol

Apply Form

Username

Comment

Reason for applying

Your Work


Drag a photo here

or

Select a photo from your computer

Apply

Figure 29 Artist Apply Form



User Profile

Transaction Details

Apply for

Log Out

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Transaction Details

Tid	Tattoo Name	Username	Address	Time
1				
2				
3				
4				
5				
6				

Figure 30 User Transaction Details



Artist Profile

View Tattoos

Transaction Details

Log Out

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First Name	Artist
Last Name	Artist
Address	Artisthouse
Phone No	25126
Email	Artist@artist.com
Gender	Male

Update Profile

Upload Photo

Figure 31 Artist Dashboard



Artist Profile

View Tattoos

Transaction Details

Log Out

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Transaction Details

TId	Tattoo Name	Username	Address	Time
1				
2				
3				
4				
5				
6				

Figure 32 Artist Transaction Details



Artist Profile

View Tattoos

Transaction Details

Log Out

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Ashish Dangol

Update Profile

First Name

Last Name

Address


Phone No

Email

Gender

Update

Figure 33 Artist Update Profile



Artist Profile

View Tattoos

Transaction Details

Log Out

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Upload Photo

Drag a photo here


or

Select a photo from your computer

Upload

Cancel

Figure 34 Artist Upload Photo



Artist Profile

View Tattoos

Transaction Details


Log Out

Royale Tattoo Service

Ashish Dongol


Home Tattoos Artists About Us Contact Us Login

My Tattoos




Update Delete

Brain tattoo




Update Delete

Compass tattoo




Update Delete

Wing tattoo




Update Delete

Scul Rose



Update Delete

Monkey Glasses




Update Delete

Beach Tattoo

Add Tattoo

Figure 35 Artist View Tattoos



Artist Profile

View Tattoos

Transaction Details

Log Out

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Ashish Dongol

Add Tattoo

Tattoo Name

Tattoo Artist

Price

Tattoo Description

Tattoo Photo


Drag a photo here

or

Select a photo from your computer

Add Tattoo

Figure 36 Add Tattoo



Artist Profile

View Tattoos

Transaction Details

Log Out

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Ashish Dongol

Update Tattoo

Tattoo Name

Tattoo Artist

Price

Tattoo Description

Tattoo Photo

Drag a photo here

or

Select a photo from your computer

Update Tattoo

Figure 37 Update Tattoo