# Tickex

## Project 1

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# Product Vision

Tickex is a comprehensive ticketing system that allows customers to securely and easily purchase tickets for multiple venues and concerts in many languages and currencies. We enable sellers to easily manage sales for multiple venues and reach a wider audience.

# Personas

## Possible Personas

1. Consumer: Consumers are individuals who aim to acquire a limited number of tickets for a concert. They may use our product to purchase tickets for an event they wish to attend.
2. Reseller: Resellers purchase tickets in bulk for the purpose of reselling them. Our product can be used to quickly buy a large quantity of tickets for an event they are looking to resell.
3. Commercial Client: Commercial clients are companies who buy tickets in bulk for the purpose of attending an event as a group. Our product can be utilized to purchase tickets for their employees to attend a concert or other event.

## Persona Examples

### Persona 1: Dana, the Music Enthusiast

Dana is a 24-year-old professional living in Toronto. Since a young age, she has had a passion for music, so she attends concerts on a regular basis. She works in HR for a large corporation during the day and spends her evenings and weekends exploring the city's music scene in different clubs and venues.

Dana often finds herself searching for new and exciting shows to attend, especially for her favorite artist, Rihanna. To find where's Rihanna’s next show she is reading music blogs and checking Rihanna's fan page on Reddit on a daily basis.

She typically books tickets in advance to ensure she gets the best seats and to avoid any last-minute hassles. However, she worries about the authenticity of tickets purchased from resellers and fears being scammed. She is looking for a platform that makes ticket buying a secure and easy. Dana primarily uses her smartphone to purchase tickets and prefers user-friendly apps over the content overflow web site usually have.

"I just want a platform that makes buying tickets easy, affordable, and secure. I don't want to worry about missing out on my favorite shows or being scammed."

### Persona 2: Vincenzo, the Concert Promoter

Vincenzo is 35 and has been organizing concerts for 10 years. He loves live music and making special memories for people who enjoy it. He has a company in Montréal and works with a team of 10 people to promote concerts at different venues in Québec.

Every day, Vincenzo looks at reports from the previous night's concert and orders tickets for upcoming shows. Then he talks with his team, venue managers, and sometimes the artists to make sure everything will go as planned. He looks for new opportunities to get more people interested in buying from his business.

At night, Vincenzo worries about selling tickets and making sure orders are processed quickly. He wants a platform that is easy to use and helps him reach more people. He also wants people to have a safe, smooth ticket buying experience.

Vincenzo uses technology and traditional methods to stay up to date with the concert industry. He looks at websites, magazines, and contacts for information. He uses his laptop for ticket orders and wants a platform with strong security and real-time sales updates.

"I need a platform that makes ticket management easy, efficient, and secure. I want to reach a wider audience and ensure a seamless ticket buying experience for my customers."

### Persona 3: Jessica, The Superfan

Jessica is a 19-year-old girl who lives in Toronto Ontario. She’s not as passionate about music in general as someone who would call themself a music enthusiast, but there is one band that she loves more than the rest, and whenever they show up in Toronto, she wants to be the first to get the best seats and experience possible.

Jessica follows her favourite band on every social media that they have a platform on, listens to all their singles and albums on release, and is in a multitude of online communities filled with superfans like herself who are obsessed with the band.

Jessica would prefer to use her cell phone to purchase the tickets so that she could get them as soon as the concert is announced.

Jessica does not care all that much for other concerts that are going on, and just wants a quick and easy way to the events where her favorite band is playing in her city.

“I don’t really care about all the other concerts that are going on in Toronto, I just want to be able to search for the events that “Band X” are playing at”

### Persona 4: Ronaldo, The Venue Owner

Ronaldo is a 56-year-old who lives in downtown Toronto. He’s passionate about concerts and love to host his own. He owns a small venue in Toronto. The venue also doubles as a bar where people can get drinks while they enjoy a performance. His venue can hold about 100 people, and usually hosts local artists.

Ronaldo loves to represent his home and loves to host local artists, but he is having a hard time promoting his venue. He is looking for a place to show off his venue and the artists that preform there.

“I want a platform where I can show off my venue and the amazing artists that preform here. As a smaller venue, we provide a more personal experience where you can grab a drink and even meet the artists after the show!”

# User Stories

1. As a customer, I want to be able to purchase tickets for a concert online, so that I can easily secure my seat without having to physically go to a box office or venue.
2. As a concert promoter, I want to be able to add events to the website so that people can purchase tickets for my events
3. As a concert promoter, I want to be able to update information about the concerts I'm organizing on the platform, so that I can make changes easily and efficiently.
4. As a reseller, I want to be able to purchase concert tickets in bulk at a discounted price, so that I can resell them for a profit.
5. As a concert promoter, I want to be able to edit seat availability, so I can better control on my events.
6. As a customer, I want to be able to buy tickets with multiple currencies, so that I can make purchases with my preferred currency.
7. As a customer, I want to be able to view seat availability, so that I can select the best seat for my event.
8. As a customer, I want to be able to sort tickets by price so that I can find the best deal possible.
9. As a venue owner, I want to be able to add my venue to the website so that customers can purchase tickets for events at my venue.
10. As a venue owner I want to be able to modify the details of my venue so that I can keep all information up to date.
11. As a customer, I want to be able to see my purchase history so that I can keep track of the tickets I’ve bought.
12. As a venue owner, I want to be able to see just the venues that I own so that I can view them without searching through all of the venues.
13. As a customer, I want to be able to search for tickets by an artist's/band's name so that I can easily find tickets for that artist/band.

# Features

1. Venue owners: Admins should be able to add, edit, and delete venue information such as name, location, seating plans and seat types.

* **Constraints:** Admins should only be able to add, edit, and delete venue information that is associated with their own account.

1. Venue owners: Admins should be able to add, edit, and delete concert information such as name, date, venue, and ticket prices. They should also be able to set the number of seats available for each seat type.

* **Constraints:** Admins should only be able to add, edit, and delete venue information that is associated with their own account.

1. Venue Owner Business Registration: Venue owners need to register their businesses by providing their business number during the sign-up process. This information will be verified by the system to ensure that the venue owner is a legitimate business and that they are authorized to manage the property that they are listing on the platform.

* **Constraints:** Automatization can be up to 3 business days, in the meantime the venue owner can upload and update his listings but they won’t be published

1. Order management: The system should be able to accept and process ticket orders from consumers and resellers.
2. Users should be able to select a concert, venue, seat type, and number of seats, and then add the selected seats to their shopping cart. The system should then calculate the total cost of the order, including any applicable fees and taxes.

* **Constraints:** The system should only process valid orders, meaning that the user has selected valid seats, seat types, and number of seats.

1. Resellers should have the same functionalities as a regular user, but with discount when buying more than 10 tickets.

* **Constraints:** Resellers should only receive the discount when buying more than 10 tickets.

💡 **Note that they share the same account type, the only difference occurs when a user buys more than 10.**

1. Purchase history: Provide users with a history of all their past ticket purchases, including the date, time, venue and concert name.

* **Constraints:** Users should only be able to view their own purchase history.

1. Order confirmation: Display an order confirmation screen to users after they have completed their purchase, including a summary of their order and payment information.

* **Constraints:** The order confirmation should display only after the order was processed and the information associated with the user account.

1. View concert details: Users should be able to view details about a specific concert, including venue, seating plan, seat types and prices, and available seats.

* **Constraints:** User should only view upcoming event

1. User authentication and authorization: The system should require users to create an account and log in before they can place an order. Admins should have special dashboard where they can manage venue and concert information, view and manage orders, and generate reports.

* **Constraints:** Users should only be able to access their own account, and admins should only be able to access the admin dashboard or home page(with no option to buy tickets).

💡 **Note that there are 2 types of users, regular user, and a venue owner**

1. Payment processing: The system should integrate with a secure payment protocol to process credit card payments.

* **Constraints:** The system should only process valid credit card information, and users should only be able to complete a transaction after they have logged in to their account.

1. Email notifications: Users should receive email notifications confirming their orders.

* **Constraints:** Users should only receive email notifications for orders associated with their account.

1. Search for concerts: Users should be able to search for concerts by name or artist, date range, location, and genre.

* **Constraints:** The search results should only include upcoming concerts

1. Sort search results: Users should be able to sort search results by various criteria such as date range, location, genre, and price range.

* **Constraints:** The search results should only be sorted according to the criteria selected by the user.

1. Refine search results: Users should be able to refine their search results based on various filters such as date range, location, genre, and price range.

* **Constraints:** The search results should only be refined according to the filters selected by the user.

1. Customer support: Provide a way for users to contact customer support, through a contact form, to get help with any issues they may be experiencing with the site or their orders.

* **Constraints:** The form should be available to everyone, even when not logged in

# High Level Architecture Diagram

User Interface

|  |  |
| --- | --- |
| Web browser | Tickex application |

User Interface Management

|  |  |  |
| --- | --- | --- |
| Forms management | Interface creation/delivery | Login |

Configuration Services

|  |  |  |
| --- | --- | --- |
| Group configuration | User interface configuration | Security configuration |

Application Services

|  |  |
| --- | --- |
| Ticket purchasing | Achieve access (ticket purchase history) |
| Venue creation | Event creation |

Integrated Services

|  |  |  |
| --- | --- | --- |
| Authentication and authorization | User analytics | Payment processing |

Shared Infrastructure Services

|  |  |  |
| --- | --- | --- |
| Authentication | User storage | Search |
| Venue storage | Event storage | Logging and monitoring |