INB373  
Assignment Proposal

Michael Walton (04089022)

# Project Brief

Ever wanted to attend your favourite sporting or music event but couldn’t make it to the venue? What if you could be best seat for the Champions League final, live from the comfort of your own home? Virtual Reality is becoming a reality, coupling this with live, high definition, stereoscopic 360˚ video and audio RealXP˟ aims to put you in the venue for the real experience.

This project will leverage .NET technology to sell tickets to RealXP˟ events, showcase the experience and allow customers to join events.

The project will not actually provide a RealXP˟ experience event using Virtual reality, but rather demonstrate what the website selling and hosting this service might look and function like.

# Interface Functionality

* Display events and pricing
* Display venues
* Showcase user experience
* Display user venue reviews
* Booking of events (simulated ecommerce)
* Joining event (no actual event shown, a placeholder video will be used on an ‘always open’ event)
* Customer authentication
* Customer account management
* Customer action logging

# Business Logic

The rules and processes that govern the business and that the application will follow:

* Customers buy virtual seats to an event.
* The business, RealXP˟, provide a live event experience streamed to the user through the web app and delivered to the end user in virtual reality.
* The customer must create a user account on the web application to make purchases.
* The customer can manage their account, view transaction history and past and upcoming events.
* The customer selects an event and a virtual seat and pays for it through the web application with a choice of payment methods.
* After payment one virtual seat capacity is reserved for the customer for the live event broadcast at advertised date and time.
* Virtual seats capacity are sold at 1 per customer, per event.
* One virtual seat can hold many customers.
* Virtual seats contain a camera.
* Events are held in venues.
* Venues can have many virtual seats.
* A single virtual seat can have different prices for any given event.
* A single virtual seat can have different sale capacity for any given event.
* Customers can view and create reviews for venues.
* The web application must log all customer activity

# Database Schema (alpha)

The database schema is described below in Relational Notation. This is an alpha release of the database and the schema may change.

cameras (camera\_id, camera\_brand , camera\_model, camera\_max\_seats, camera\_resolution\_x, camera\_resolution\_y, camera\_has\_audio, camera\_fps)

event\_seats (event\_seat\_id, event\_id, seat\_id, event\_seat\_sell\_capacity, event\_seat\_price)

events (event\_id, venue\_id, event\_start\_time, event\_end\_time, event\_name)

payment\_methods (payment\_method\_id, payment\_method\_name)

payments (payment\_id, payment\_method\_id, payment\_successful, payment\_gateway\_transaction\_reference)

seats (seat\_id, camera\_id, venue\_id, seat\_capacity, seat\_number, seat\_row, seat\_section, seat\_description, seat\_sample\_view)

user\_addresses (user\_address\_id, user\_id, user\_address\_name, user\_address\_country, user\_address\_city, user\_address\_state, user\_address\_line1, user\_address\_line2, user\_address\_line3, user\_address\_line4, user\_address\_postcode)

user\_logs (user\_logs\_id, user\_id, users\_logs\_action, users\_logs\_timestamp)

user\_purchases (user\_purchase\_id, event\_seats\_id, payment\_id, user\_purchase\_timestamp)

users (user\_id, user\_email, user\_password\_hash, user\_password\_salt, user\_firstname, user\_lastname

venue\_reviews (venue\_review\_id, venue\_id, user\_id, venue\_review\_review, venue\_review\_rating)

venues (venue\_id, venue\_name, venue\_coords, venue\_country, venue\_city, venue\_state, venue\_address\_1, venue\_address\_2, venue\_address\_3, venue\_postcode)