

## About DeltaX

DeltaX is an advertising technology startup. We are building a cloud based platform for advertising agencies that integrates with over 10 advertising solution through APIs. Advertisers worldwide can efficiently buy, track, attribute, optimize and report metrics across all media channels (Search, Social, Display RTB, Mobile, Video) using our revolutionary platform.

## Awards + Recognition

- DeltaX is the largest Facebook Marketing Partner in South-East Asia
- DeltaX was invited to be part of the BlackBox program in Silicon Valley
- DeltaX one of the 3 companies chosen for Microsoft Ventures Accelerator Plus Program
- DeltaX chosen as TECH30 by YourStory.com as one of the most promising startups in India
- DeltaX named in the Top 10 innovative digital startups to watch - Havas UK

## Engineering Culture

Core Platform / Services This is the core platform - which is a combination of web application, suite of services (130 at last count), databases, APIs.	Ad-serving / Tracking This is the core adserver (serving, api - as it's consumed by the core platform) and the tracker (click / impression and even trackers for ads and publishers)
<u>Backend frameworks</u> <ul style="list-style-type: none"> <li>- .NET MVC</li> <li>- EF Code First</li> <li>- Fluent Migration</li> <li>- WCF</li> <li>- Web API</li> </ul> <u>Frontend frameworks</u> <ul style="list-style-type: none"> <li>- Knockout.JS</li> <li>- Vue.JS (experimental)</li> </ul> <u>Database / Storage</u> <ul style="list-style-type: none"> <li>- Azure SQL 2014</li> <li>- Azure Redis (session cache + lookup)</li> <li>- Azure Storage</li> </ul> <u>Cloud Platform</u> <ul style="list-style-type: none"> <li>- Microsoft Azure</li> </ul> <u>Additional Services</u> <ul style="list-style-type: none"> <li>- Azure SQL Database Pool</li> <li>- Azure Functions</li> <li>- AWS Lambda</li> </ul>	<u>Backend frameworks</u> <ul style="list-style-type: none"> <li>- Node.js</li> <li>- Node fiber</li> </ul> <u>Database / Storage</u> <ul style="list-style-type: none"> <li>- AWS DynamoDB</li> <li>- AWS ElasticSearch</li> <li>- AWS S3</li> <li>- AWS Cloudfront</li> <li>- AWS ElasticTranscoder</li> </ul> <u>Cloud Platform</u> <ul style="list-style-type: none"> <li>- Amazon Web Services</li> </ul> <u>Additional Services</u> <ul style="list-style-type: none"> <li>- AWS Auto-scaling</li> <li>- AWS ELB</li> <li>- AWS Route 53</li> <li>- AWS Lambda</li> </ul>
Mobile App This is limited functionality of the core platform on mobile	
Ionic Framework	

## Engineering Blog

You can follow some of the work we do on our engineering blog - <http://engineering.deltax.com/>

## Problem Statement

Create a IMDB.com like website with basic CRUD and movie listing using C# (Asp.NET MVC / Asp.NET Core). We would like to have the following entities in the application.

Actors	Movies	Producers
<ul style="list-style-type: none"><li>- Name</li><li>- Sex</li><li>- DOB</li><li>- Bio</li></ul>	<ul style="list-style-type: none"><li>- Name</li><li>- Year of release</li><li>- Plot</li><li>- Poster (image)</li></ul>	<ul style="list-style-type: none"><li>- Name</li><li>- Sex</li><li>- DOB</li><li>- Bio</li></ul>

## Relationships

- Actor can act in multiple movies
- Movie can have multiple actors
- Movie has only one producer
- Producer can produce multiple movies

## Application specifics (minimum requirements)

1. Screen to list all movies with Name, Year of release, Producer and all Actors of that movie
2. Screen to 'add' a new movie with the necessary fields with existing actors and producers. If the user wants to add new 'Actors' and 'Producers' while creating the movie which are not present in the database then he should be able to do so while being on the same screen.
3. 'Listing' screen should allow user to click on 'Edit' and edit all the details of the movie and save it would be a nice to do thing.

## Hints and Tips

1. Focus on database design; we are fanatic about Normal Forms.
2. We are always on the lookout for best practices. Design/Styling/CSS is not critical; functionality is.
3. Define your own rules for validation; use common sense - also please make a note of the validations that you have added
4. Use of upcoming JS frameworks like Knockout / Vue / React / Angular to surprise us.
5. Use Docker / ASP.NET Core and 'WOW' us!

## Application Submission

### DB script / Code

Commit the Code to your Bitbucket / Github account along with the DB scripts. Please share the URL with detailed instructions for us to setup and run your web application.

Kindly email your queries or submit your assignment at 'hireme+inegg2018@deltax.com' with subject - 'Product Engineer - YOURNAME'