

Domain Modelling

Let's dive in

100x

Check - In

Lesson 1 video. Watched  or Not 

Check - In

Lesson 1 video. Watched  or Not 

Pre-Assignment. Attempted  or Not 

Check - In

Lesson 1 video. Watched  or Not 

Pre-Assignment. Attempted  or Not 

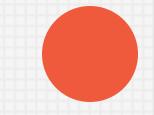
Excited! Yes  or No 



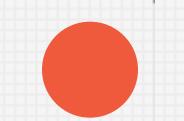
Entities (Things, Nouns)



Entities (Things, Nouns)



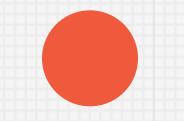
Attributes (Properties)



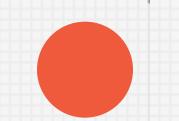
Entities (Things, Nouns)



Attributes (Properties)



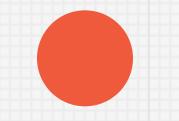
Relationships (1 to N, N to N, 1 to 1)



Entities (Things, Nouns)



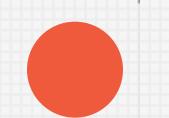
Attributes (Properties)



Relationships (1 to N, N to N, 1 to 1)



Constraints (Rules, Restrictions)



Entities (Things, Nouns)



Attributes (Properties)



Relationships (1 to N, N to N, 1 to 1)



Constraints (Rules, Restrictions)



Actions (Verbs)

Today's Class

- Understand in Detail
- Hands-on Exercises
- Techniques, Tricks

Entities

Some Obvious Ones

Retail

Customer

Product

Order

Invoice

Cart

Item

Streaming

Movie

Song

Episode

Profile

WatchHistory

Genre

Library

Book

Author

Edition

Magazine

Shelf

Genre

Counter-Intuitive / Non-Obvious

Retail

PriceTrend

Location

Streaming

HomePage

MostPopular

Recommendation

ViewingSession

Attributes

Non-Obvious & Complex

- **Address:** Made up of multiple parts
- **Location:** Lat & Long – no meaning when separated
- **Lock and Key:** If you lose the key, is the lock a lock or just a deadweight?

Relationships



1 to Many



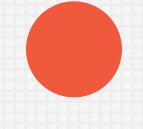
1 to Many



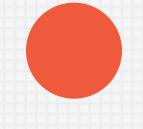
1 to 1



1 to Many



1 to 1



Many to Many

**I will share an example,
you tell me what kind.**

User < > Tweet

A : 1 to Many

B : 1 to 1

C : Many to Many

User < > Profile Picture

A : 1 to Many

B : 1 to 1

C : Many to Many

Tweet < > Location

A : 1 to Many

B : 1 to 1

C : Many to Many

Author < > Book

A : 1 to Many

B : 1 to 1

C : Many to Many

Book < > Edition

A : 1 to Many

B : 1 to 1

C : Many to Many

Book < > First Edition

A : 1 to Many

B : 1 to 1

C : Many to Many

Credit Card < > Expiry Date

A : 1 to Many

B : 1 to 1

C : Many to Many

Constraints

a.k.a Invariants

a.k.a Rules

Famous Constraints

- Username Uniqueness 
- 280 character limit 
- No Name change on Facebook 
- Return Date must be after Start Date 
- Geofences on Uber 

Famous Constraints

- Tweet must belong to a User (Referential)
- Video can only be 720p, 1080p, 1440p (Domain)
- Unique Season Number and Episode Number (Key)
- Book must have a Name (Null)
- Latitude must be between [-90, 90]

Not So Obvious Constraints

- No Sign Up Until you read the Terms & Conditions
- Only regular voters count in the IMDb Top 250
- Can only unpause Subscription X days after Pausing
- Must Wait Y months to delete account on
<Fintech>
- No “Back” button on Banking Websites

Actions (Verbs)

**Perhaps the best understood
amongst all.**

The key is to identify *domain* actions.

Scrolled Down

vs

Viewed Content

Trying to Book a Taxi

vs

Just Taking a Screenshot

Reducing the volume is just an action.

**Abandoned watching the movie is a
domain action.**

**Actions aren't simply what the user
does.**

Actions are a relevant sequence of user behavior.

Let's Talk Twitter