

PROJECT DISSECTION

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INTRODUCTION

- WELCOME TO THIS CASE STUDY ON DISSECTING AND DESIGNING PRODUCTS FOR TOP LEADING PLATFORMS. IN THIS CASE STUDY, YOU WILL DELVE INTO THE INTRIGUING WORLD OF SCHEMA DESIGN FOR A PROMINENT PLATFORM OF YOUR CHOICE.
- MY TASK WAS TO CHOOSE A TOP LEADING PLATFORM, RESEARCH ITS FEATURES, AND METICULOUSLY CRAFT A SCHEMA DESIGN THAT ENCAPSULATES THE ESSENCE OF ITS FUNCTIONALITY.
- BY FOCUSING ON KEY ENTITIES, ATTRIBUTES, AND RELATIONSHIPS, YOU WILL GAIN INVALUABLE INSIGHTS INTO HOW DATA ARCHITECTURE DRIVES THE PLATFORM'S EFFECTIVENESS.

CONTINUED...

- **STEP 1: CHOOSE A LEADING PLATFORM**
- **STEP 2: RESEARCH**
- **STEP 3: PRODUCT DISSECTION AND REAL WORLD PROBLEMS SOLVED BY THE PLATFORM**
- **STEP 4: CASE STUDY ON THE REAL WORLD PROBLEMS AND APPROACH TO SOLVING THEM**
- **STEP 5: SCHEMA DESIGN BASED ON TOP FEATURES**
- **STEP 6: RATIONALE BEHIND THE DESIGN**
- **STEP 7: CREATE AN ER DIAGRAM**
- **STEP 8: PRESENTATION OF FINDINGS**

NETFLIX

- NETFLIX, FOUNDED IN 1997 BY REED HASTINGS AND MARC RANDOLPH, IS A GLOBAL STREAMING AND ENTERTAINMENT PLATFORM WHICH HAS REVOLUTIONIZED THE WAY PEOPLE CONSUME DIGITAL CONTENT.
- IT PROVIDES A DIVERSE LIBRARY OF WEB SERIES, TV SHOWS, MOVIES, DOCUMENTARIES ETC.. WITH OVER A MILLION SUBSCRIBERS WORLDWIDE, NETFLIX HAS BECOME A LEADING PLAYER IN THE STREAMING INDUSTRY.

COMPANY OVERVIEW

- USER EXPERIENCE :
- CONTENT CATALOGUE :
- USER PROFILES:
- VIEWING HISTORY:
- RECOMMENDATION ALGORITHM:
- CONTENT STREAMING:
- USER INTERACTIONS:
- PAYMENT AND SUBSCRIPTION:
- CONTENT CREATION:

PRODUCT DISSECTION AND REAL-WORLD PROBLEMS SOLVED BY NETFLIX:

- **PROBLEM 1: PERSONALISED CONTENT RECOMMENDATIONS:**
- **PROBLEM 2 : USER PROFILES AND MULTIPLE VIEWING HISTORIES:**
- **PROBLEM 3 : SEAMLESS CONTENT PLAYBACK:**
- **PROBLEM 4: ORIGINAL CONTENT PRODUCTION.**
- **PROBLEM 5: USER ENGAGEMENT THROUGH INTERACTIONS:**
- **PROBLEM 6: CROSS-DEVICE ACCESSIBILITY:**
- **PROBLEM 7: BILLING AND SUBSCRIPTION MANAGEMENT:**

CASE STUDIES

- **CASE STUDY 1: PERSONALISED CONTENT RECOMMENDATIONS:**
- **CASE STUDY 2 : USER PROFILES AND MULTIPLE VIEWING HISTORIES:**
- **CASE STUDY 3 : SEAMLESS CONTENT PLAYBACK:**
- **CASE STUDY 4: ORIGINAL CONTENT PRODUCTION.**
- **CASE STUDY 5: USER ENGAGEMENT THROUGH INTERACTIONS:**
- **CASE STUDY 6: CROSS-DEVICE ACCESSIBILITY:**
- **CASE STUDY 7: BILLING AND SUBSCRIPTION MANAGEMENT:**

SCHEMA DESCRIPTION

- BASED ON THE FEATURES AND FUNCTIONALITIES OF NETFLIX, WE'LL CRAFT A SCHEMA DESIGN THAT REFLECTS HOW NETFLIX ORGANIZES AND UTILIZES ITS DATA.
- THIS SCHEMA WILL HELP US UNDERSTAND HOW NETFLIX'S DATA ARCHITECTURE DRIVES THE PLATFORM'S EFFECTIVENESS.

CONTINUED.

- **USER ENTITY:**
- USERS ARE AT THE CORE OF INSTAGRAM. THE USER ENTITY CONTAINS INFORMATION ABOUT EACH USER:



- **USER ID (PRIMARY KEY):** A UNIQUE IDENTIFIER FOR EACH USER.
- **USERNAME:** THE CHOSEN USERNAME FOR THE USER'S ACCOUNT.
- **PASSWORD:** SECURITY KEY FOR THE ACCOUNT SALTED AND HASHED
- **EMAIL:** THE USER'S EMAIL ADDRESS FOR ACCOUNT-RELATED COMMUNICATION.
- **SUBSCRIPTION PLAN:** THE USER'S CHOICE OF PLANS LIKE BASIC, STANDARD, PREMIUM.
- **PAYMENT INFORMATION:** A BRIEF DESCRIPTION ABOUT THE PAYMENT.
- **REGISTRATION_DATE:** THE DATE WHEN THE USER JOINED NETFLIX.

CONTINUED.

- **PROFILE ENTITY:**
- **PROFILE ID (PRIMARY KEY):** A UNIQUE IDENTIFIER FOR EACH USER.
- **USERID :** FOREIGN KEY REFERENCING USER ENTITY.
- **PROFILE NAME:** E.G., "JOHN'S PROFILE," "FAMILY PROFILE".
- **VIEWING HISTORY:** LINKED TO CONTENT ENTITY.
- **RECOMMENDATION:** GENERATED BY NETFLIX'S ALGORITHM, LINKED TO CONTENT ENTITY.
- **USER INTERACTIONS:** E.G., RATINGS, REVIEWS, WATCHLIST.

CONTINUED.

- **CONTENT ENTITY:**



CONTENT ID(PRIMARY KEY): A UNIQUE IDENTIFIER FOR EACH POST.

- **TITLE :** NAME OF THE MOVIE, WEB SERIES ETC..
- **DESCRIPTION :** PLOT ABOUT THE MOVIE OR WEB SERIES.
- **GENRE:** TAGS AND CATEGORIES OF GENRE LIKE ROMANCE, COMEDY, ACTION ,SUSPENSE ETC..
- **RELEASE YEAR:** DATE OF RELEASE.
- **CAST AND CREW:** DETAILS ABOUT ACTORS AND TECHNICIANS.
- **DURATION:** LENGTH OF THE MOVIE
- **VIEWER_RATINGS:** THE RATING OF THE MOVIE

CONTINUED.

- **INTERACTION ENTITY:**
- COMMENTS ENABLE USERS TO ENGAGE IN CONVERSATIONS AROUND POSTS:



INTERACTION ID(PRIMARY KEY): A UNIQUE IDENTIFIER FOR EACH COMMENT.

- **USERID :** FOREIGN KEY REFERENCING POST ENTITY.
- **CONTENTID :** FOREIGN KEY REFERENCING USER ENTITY.
- **INTERACTION_TYPE:** E.G., WATCHED, RATED, REVIEWED, ADDED TO WATCHLIST.
- **INTERACTION_DATE:** THE DATE WHEN THE INTERACTION WAS POSTED.

CONTINUED.

- **DEVICE ENTITY:**
- LIKES REPRESENT USER APPRECIATION FOR POSTS:



DEVICE ID (PRIMARY KEY): A UNIQUE IDENTIFIER FOR EACH LIKE.

- **USER ID (FOREIGN KEY REFERENCING POST ENTITY):**
- **DEVICE_TYPE(FOREIGN KEY REFERENCING USER ENTITY):** (E.G., SMARTPHONE, SMART TV, LAPTOP).
- **DEVICE_NAME:** E.G., "JOHN'S PHONE," "LIVING ROOM TV".
- **DEVICE_PREFERENCES:** (E.G., STREAMING QUALITY SETTINGS)

CONTINUED.

- **SUBSCRIPTION ENTITY:**
- **FOLLOWERS ESTABLISH CONNECTIONS BETWEEN USERS:**



SUBSCRIPTION ID (PRIMARY KEY): A UNIQUE IDENTIFIER FOR EACH FOLLOWER RELATIONSHIP.

- **USERID (FOREIGN KEY REFERENCING USER ENTITY):** THE USER WHO IS BEING FOLLOWED.
- **PLAN_TYPE (FOREIGN KEY REFERENCING USER ENTITY):** (E.G., BASIC, STANDARD, PREMIUM)
- **SUBSCRIPTION_START:** THE DATE WHEN THE FOLLOWING SUBSCRIPTION WAS INITIATED.
- **BILLING_INFO**
- **PAYMENT_HISTORY**

RELATIONSHIPS

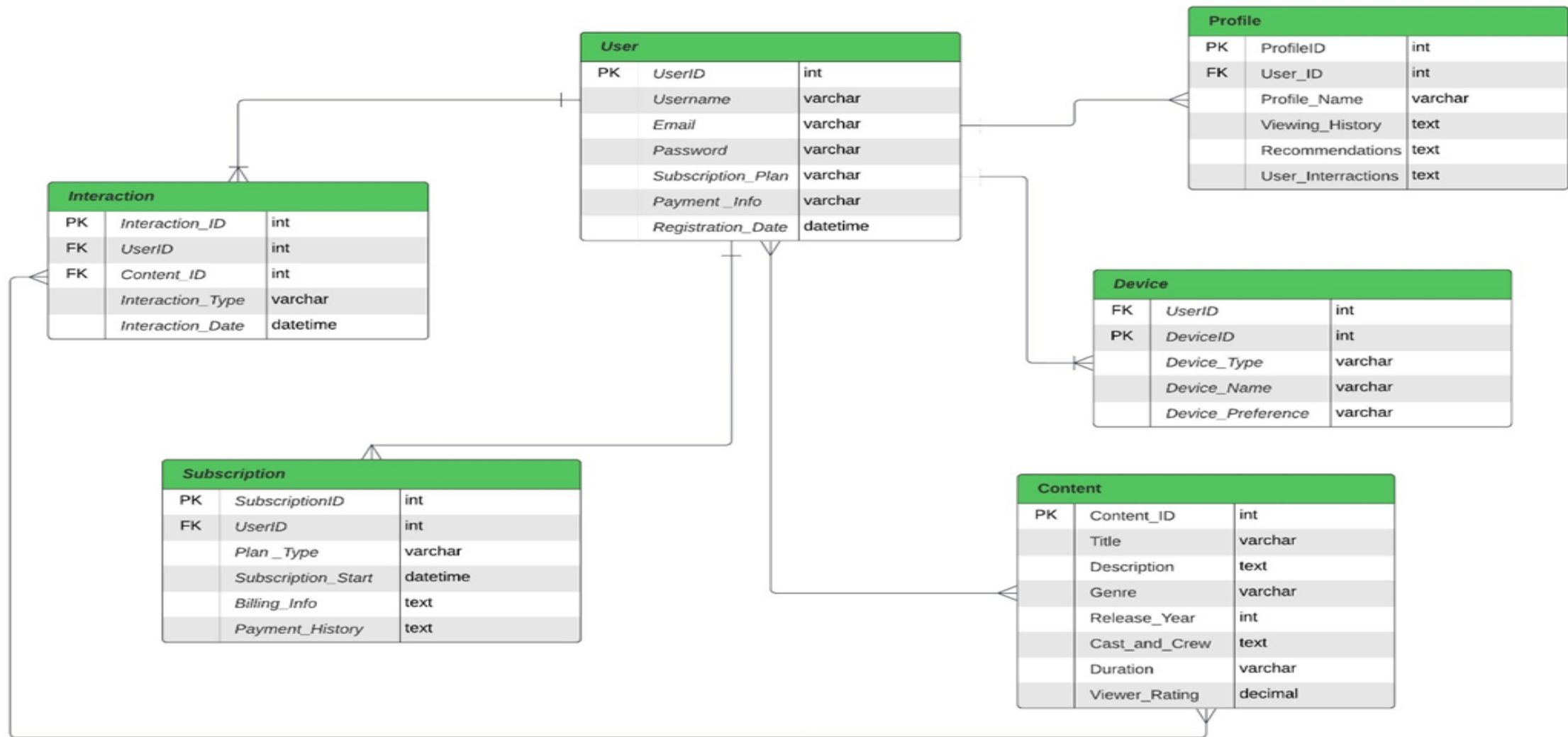
- **USERS SUBSCRIBE TO SUBSCRIPTION PLANS (1:M RELATIONSHIP):**
 - EACH USER CAN HAVE MULTIPLE SUBSCRIPTIONS BASED ON DIFFERENT PLANS AND BILLING CYCLES. EACH SUBSCRIPTION IS ASSOCIATED WITH ONE USER.
- **USERS CAN CREATE MULTIPLE PROFILES WITHIN THEIR ACCOUNTS (1:M RELATIONSHIP):**
 - EACH USER CAN HAVE MULTIPLE PROFILES WITHIN THEIR NETFLIX ACCOUNT.EACH PROFILE IS ASSOCIATED WITH ONE USER.

CONTINUED.

- **USERS INTERACT WITH CONTENT THROUGH VARIOUS ACTIONS (WATCHING, RATING, REVIEWING, ADDING TO WATCH LIST) (M:M RELATIONSHIP) :**
 - USERS CAN INTERACT WITH MULTIPLE CONTENT ITEMS, SUCH AS MOVIES AND TV SHOWS, BY WATCHING, RATING, AND REVIEWING THEM.
 - CONTENT CAN BE INTERACTED WITH BY MULTIPLE USERS WHO WATCH, RATE, AND REVIEW IT.
- **DEVICES ARE ASSOCIATED WITH USERS AND STORE DEVICE-SPECIFIC PREFERENCES (1:M RELATIONSHIP):**
 - EACH USER CAN USE MULTIPLE DEVICES TO ACCESS THEIR NETFLIX ACCOUNT.
 - EACH DEVICE IS USED BY ONE USER.

ER DIAGRAM

- LET'S CONSTRUCT AN ER DIAGRAM THAT VIVIDLY PORTRAYS THE RELATIONSHIPS AND ATTRIBUTES OF THE ENTITIES WITHIN THE INSTAGRAM SCHEMA.
- THIS ER DIAGRAM WILL SERVE AS A VISUAL REPRESENTATION, SHEDDING LIGHT ON THE PIVOTAL COMPONENTS OF INSTAGRAM'S DATA MODEL.
- BY EMPLOYING THIS DIAGRAM, YOU'LL GAIN A CLEARER GRASP OF THE INTRICATE INTERACTIONS AND CONNECTIONS THAT DEFINE THE PLATFORM'S DYNAMICS.



CONCLUSION

- IN THIS CASE STUDY, WE DELVED INTO THE DESIGN OF NETFLIX'S SCHEMA AND ENTITY-RELATIONSHIP DIAGRAM. NETFLIX HAS REVOLUTIONIZED THE DIGITAL PLATFORM BY BRINGING CONTENT ACROSS ALL FILM INDUSTRIES FROM INDIA AND WORLDWIDE WHICH GIVES AN EXPOSURE TO INDIANS ON HOW FILMMAKING IS CARRIED ACROSS THE GLOBE .
- BY UNDERSTANDING THIS SCHEMA, WE GAIN INSIGHT INTO HOW NETFLIX EFFECTIVELY MANAGES THE COMPLEXITIES OF USER INTERACTIONS AND CONTENT SHARING, CONTRIBUTING TO ITS WIDESPREAD POPULARITY AND CONTINUED GROWTH IN THE WORLD OF DIGITAL CINEMA.
- NETFLIX'S DESIGN IS SMART. IT UNDERSTANDS YOUR NEEDS AND KEEPS THINGS SIMPLE, MAKING IT THE STREAMING KING IT IS TODAY

CONTINUED..

- **KEY PARTS OF THIS SCHEMA INCLUDE:**
- **USER:** YOUR NETFLIX ACCOUNT INFO.
- **PROFILE:** SEPARATE SPACES FOR FAMILY MEMBERS.
- **DEVICE:** YOUR CHOICE OF SCREENS.
- **SUBSCRIPTION:** THE PLAN YOU PICK.
- **CONTENT:** ALL THE MOVIES AND SHOWS.
- **GENRE:** CATEGORIES LIKE ACTION OR DRAMA.
- **INTERACTION:** YOUR LIKES, REVIEWS, AND WATCHES.

THANK YOU