#### Assignment

### SOFTWARE ARCHITECTURE

Applications Opted
LinkedIn
Amazon

K RAVI KUMAR REDDY 2020MT13010 SSZG653

#### **APPLICATION 1**

# Linked in

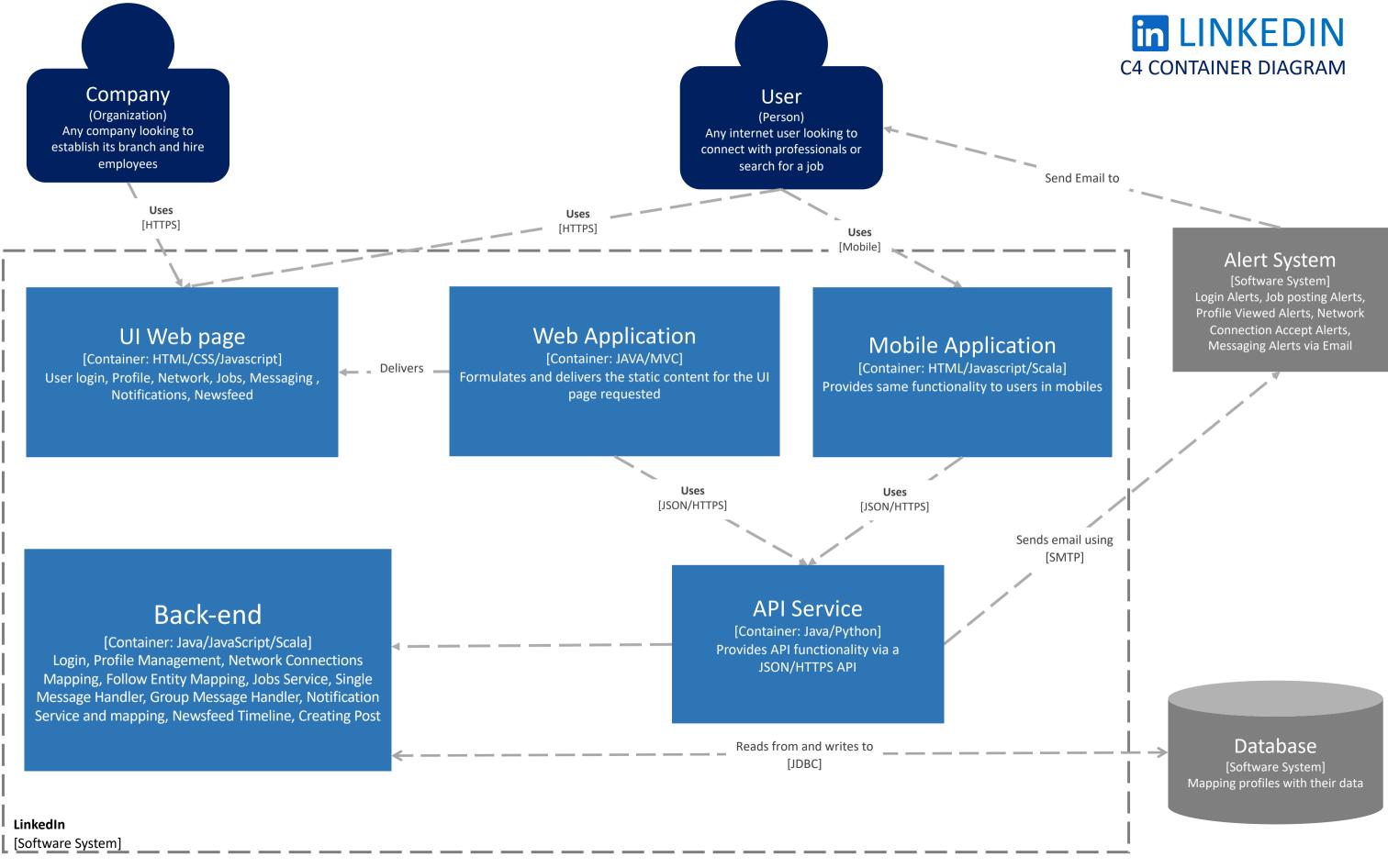


- Authentication Service
  - UI Login/Registration Portal
  - User Authentication Component
- Profile Service
  - UI Profile component
  - Add/Edit sections
- Network Service
  - UI Network connections
  - User/Company/Hashtag following
- Jobs Service
  - UI Job search component
  - Posting Jobs

- Messaging Service
  - UI Messaging
  - Message 'Seen' component
  - Group Messaging
- Notifications Service
  - UI Notifications
  - Group Notifications Handler
- Newsfeed Service
  - UI Home Newsfeed
  - Creating New Post
  - Newsfeed timeline



#### **C4 CONTEXT DIAGRAM** Alert System User [Software System] (Person) Login Alerts, Job posting Alerts, Any internet user looking to **Profile Viewed Alerts, Network** connect with professionals **Connection Accept Alerts,** or search for a job **Messaging Alerts via Email** API Linkedin [Software System] Allows users to connect with professionals and search jobs in various organizations API Uses Company Database (Organization) Any company looking to [Software System] establish its branch and hire Mapping profiles with their data employees

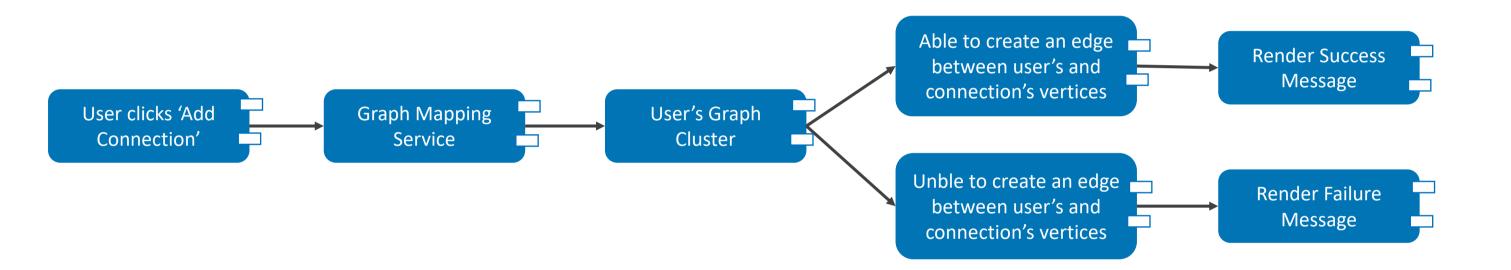


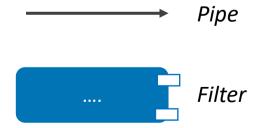


- Frontend HTML/CSS/JavaScript
- Web Application Java MVC
- Backend Java/Scala
- Database Venice
- Android Application Java/Scala
- iOS Application Objective-C
- API Application JSON/HTTPS
- Analytics: Google Analytics
- Framework: Java EE
- Content Delivery Network: Bootstrap CDN, Cloudflare
- Content Management System: MySalesforce
- Customer Support Portals: Salesforce/Siebel
- JavaScript Libraries: React, jQuery, REST API, HTML5
- Servers: Amazon EC2, Amazon Route 53
- Advertising: Facebook, Google Adware
- Web App Backend: Nginx, NodeJS



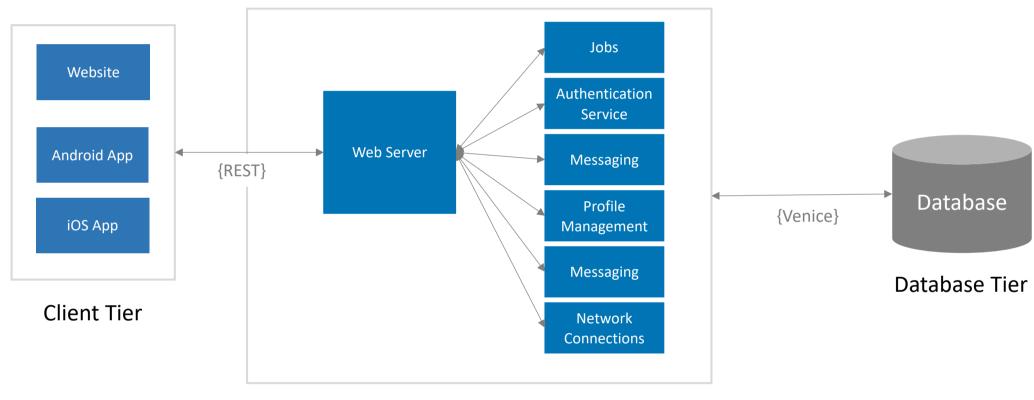
#### PIPES & FILTER FLOW - 'ADD CONNECTION'







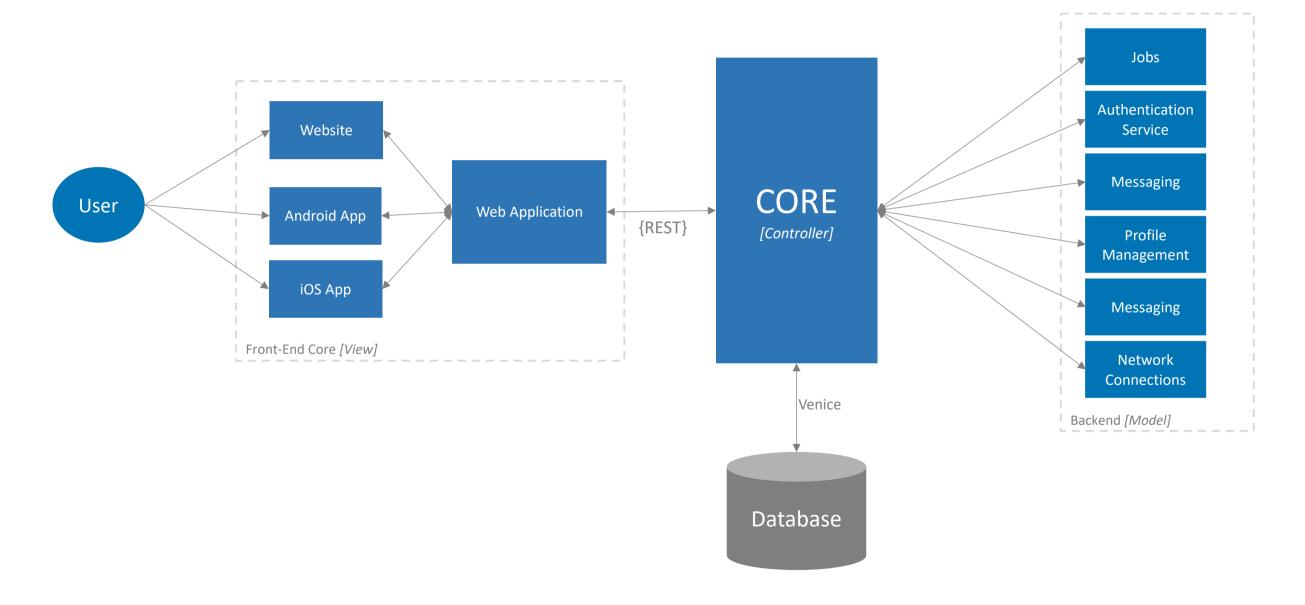
#### 3-TIER CLIENT-SERVER ARCHITECTURE



Middle Tier



#### MICRO KERNEL ARCHITECTURE



#### **APPLICATION 2**





- Authentication Service
  - UI Login/Registration Portal
  - User Authentication Component
- Search Service
  - UI Search bar, Categories, Offers
  - User based recommendations
  - User data collection and analysis
- Wishlist Service
  - UI Wishlist component
  - Profile and wishlists' mapping
- Cart Service
  - UI Job Cart Page
  - Profile and cart mapping
- Customer Support Service
  - UI Chat Support Component
  - Write to Us component
- Supply Chain Management
  - Logistics Service
  - Inventory Management

- Profile
  - KYC Verification
  - Payment Methods Verification
  - Addresses
  - Orders
- Purchase Service
  - UI Payments and Addresses
  - Bank Gateway Mapping
- Prime Video
  - User Profiles
  - Video Recommendations
  - Download Service
  - Video Streaming
  - History component
- Amazon Pay Service
  - KYC
  - Bank UPI Mapping
  - QR Code Scanner

#### **Amazon Shopping**

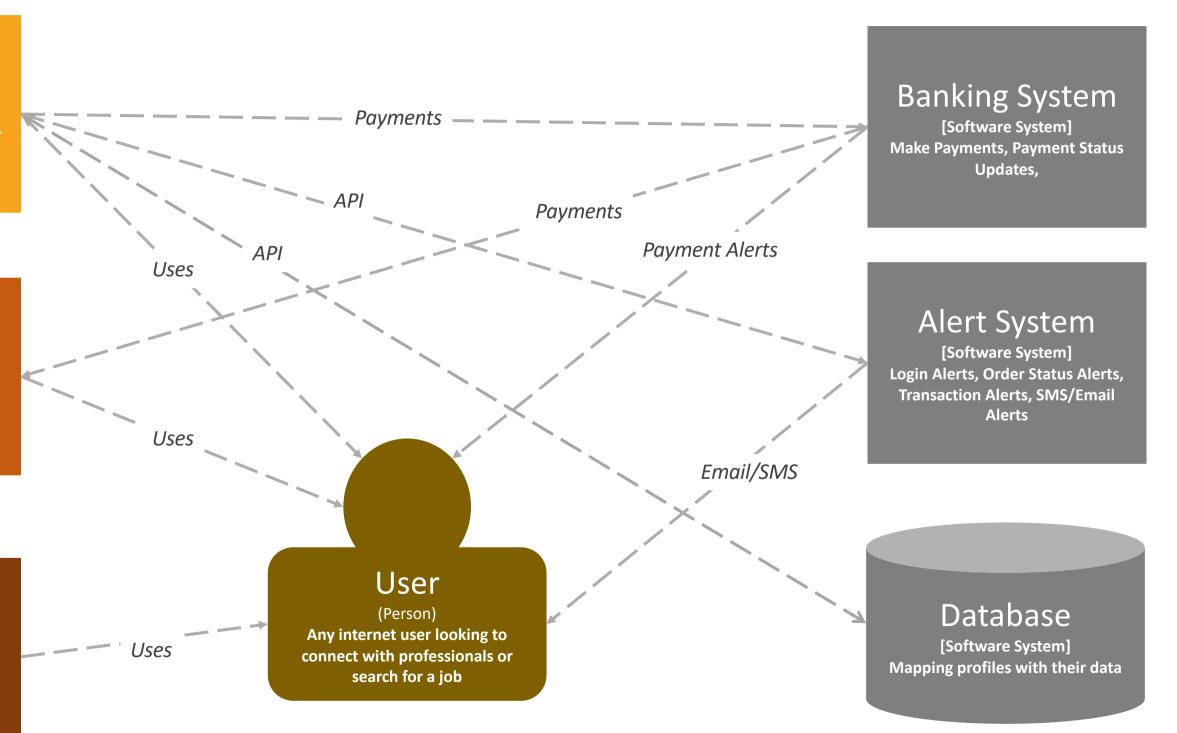
[Software System]
Allows users to purchase consumer goods online.

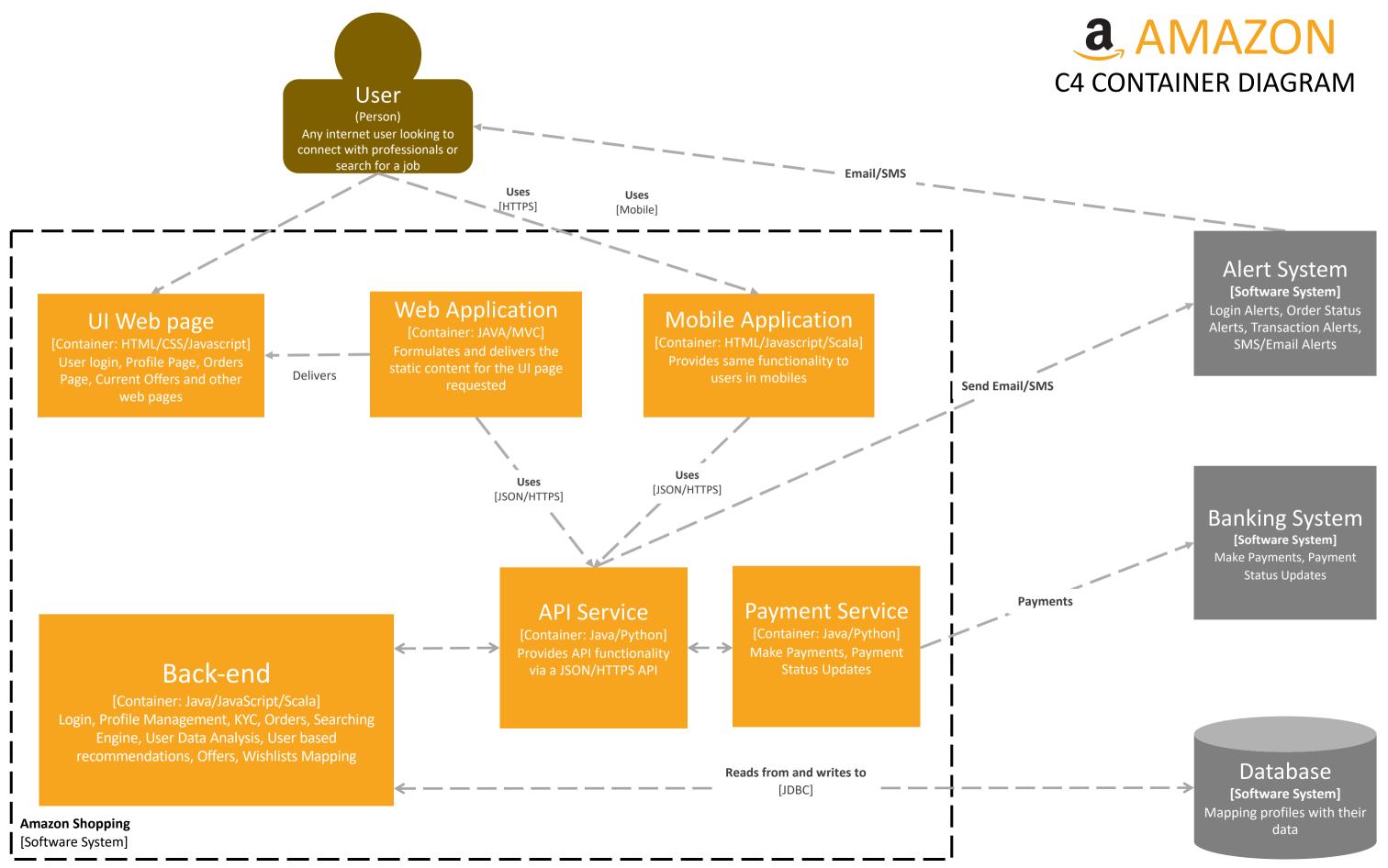
#### **Amazon Pay**

[Software System]
Allows users to make cashless
payments

#### Prime Video

[Software System]
Allows users to watch over the top video streaming of Movies and TV
Shows





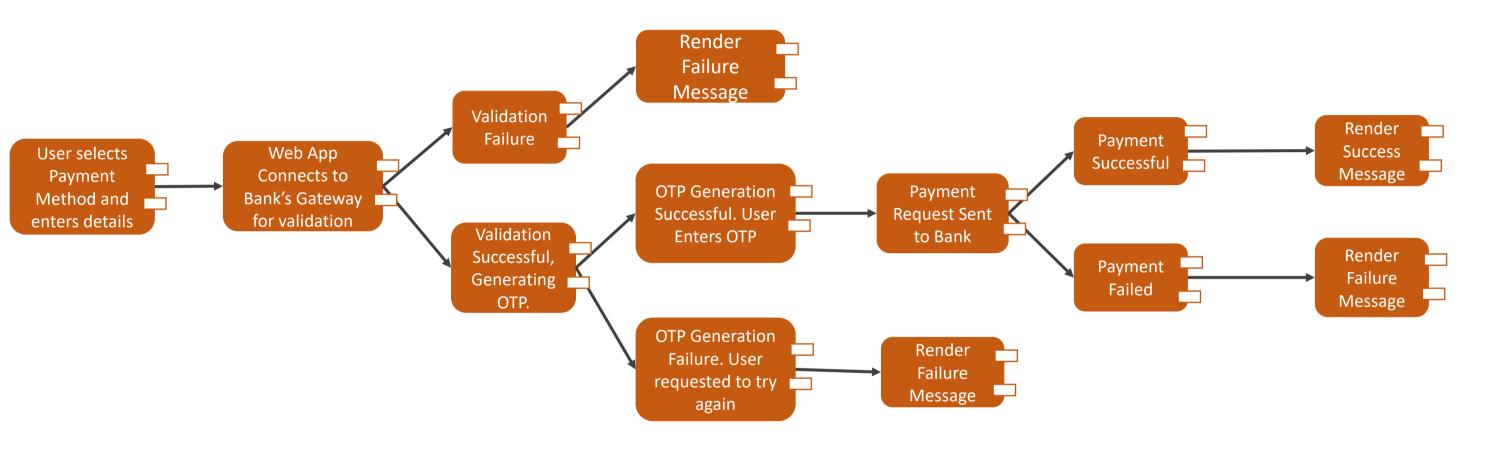
## **a**, AMAZON

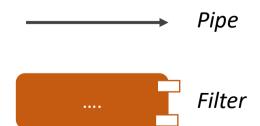
#### **TECHNOLOGY STACK**

- Frontend HTML/CSS/JavaScript
- Web Application Java MVC
- Backend Java/Scala
- Database Venice
- Android Application Java/Scala
- iOS Application Objective-C
- API Application JSON/HTTPS
- Analytics: Google Analytics
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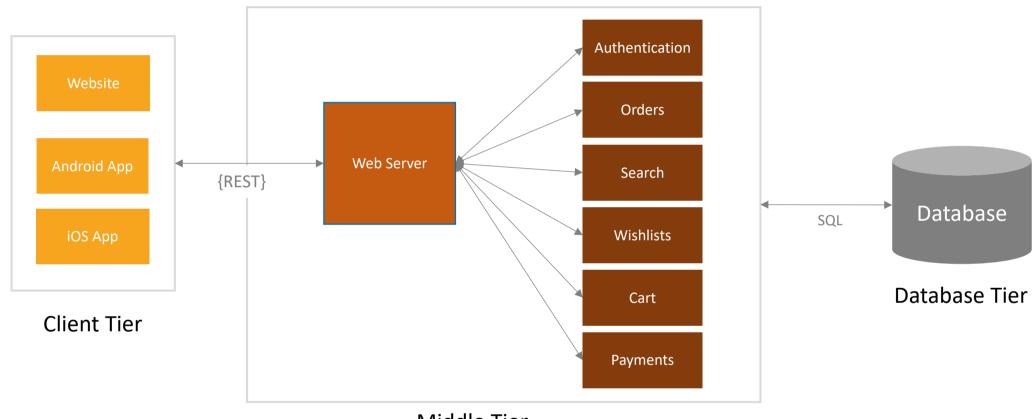
#### PIPES & FILTER FLOW - 'PAYMENTS'







#### 3-TIER CLIENT-SERVER ARCHITECTURE



Middle Tier



