CLEMSON UNIVERSITY

CPSC 3720
Lesson 11

Connie Taylor
Professor of Practice

School of COMPUTING

Welcome!

Ranjith Krishnan

Sr. Director at Manhattan Associates in Atlanta

15+ years designing, building, and delivering commerce and store solutions

Software Design

Software design is a process to transform **user requirements** into some **suitable form**, which helps the programmer in software coding and implementation.

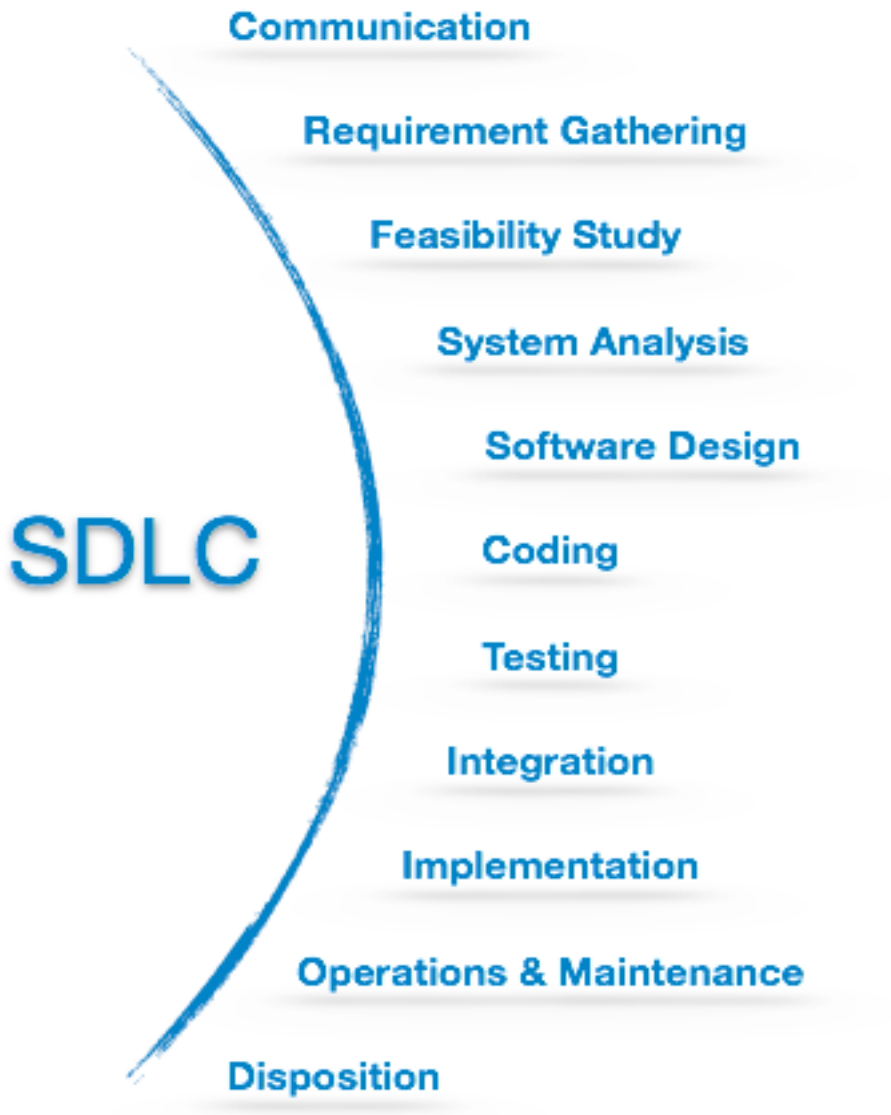
Design Levels

Architectural Design – Highest abstract version of the system.

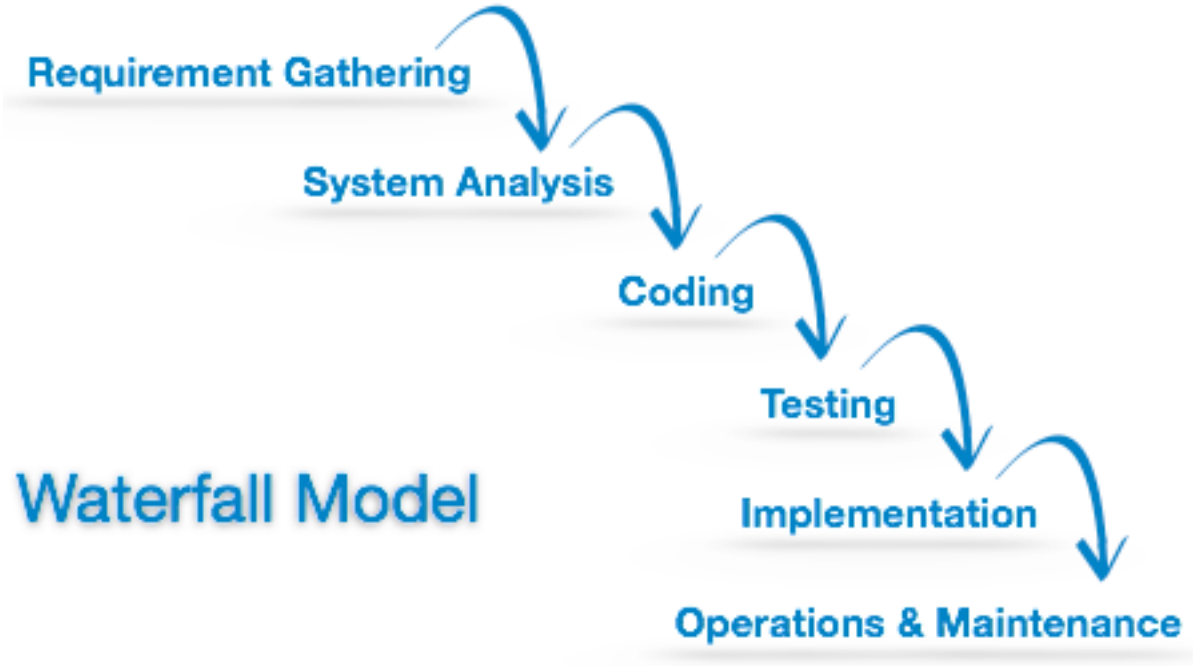
High Level Design – Less-abstracted view of sub-systems and modules and depicts their interaction with each other.

Detailed Design – More detailed towards modules and their implementations.

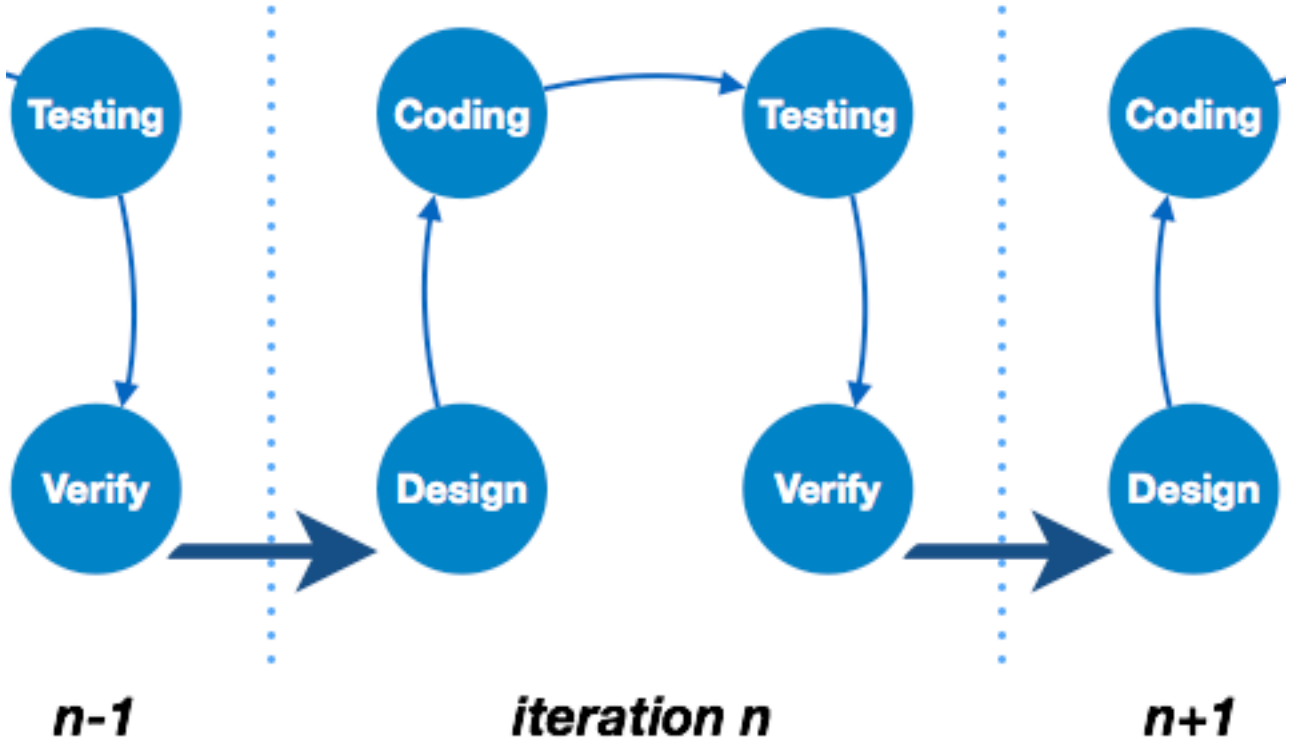
Software Development Lifecycle



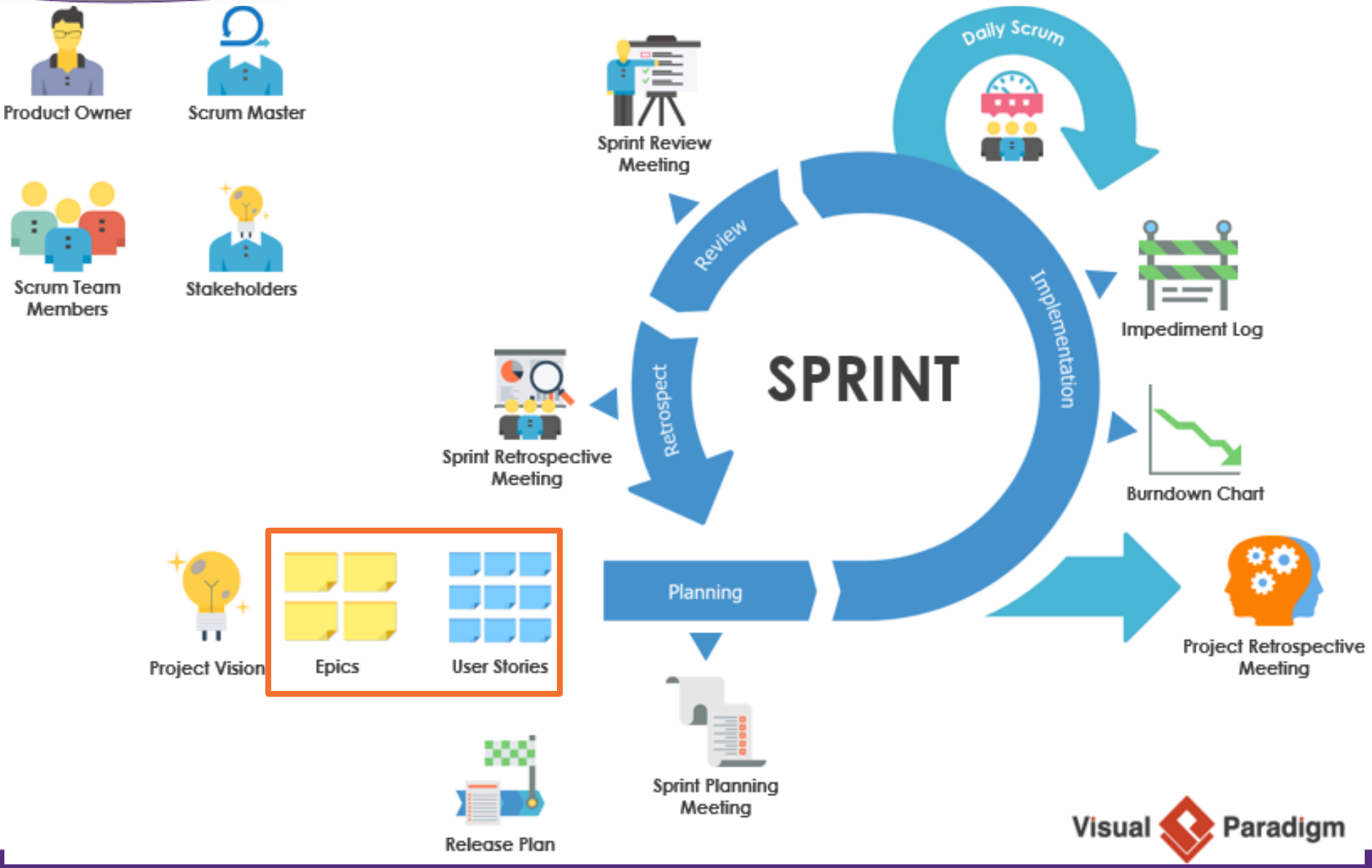
Waterfall SDLC



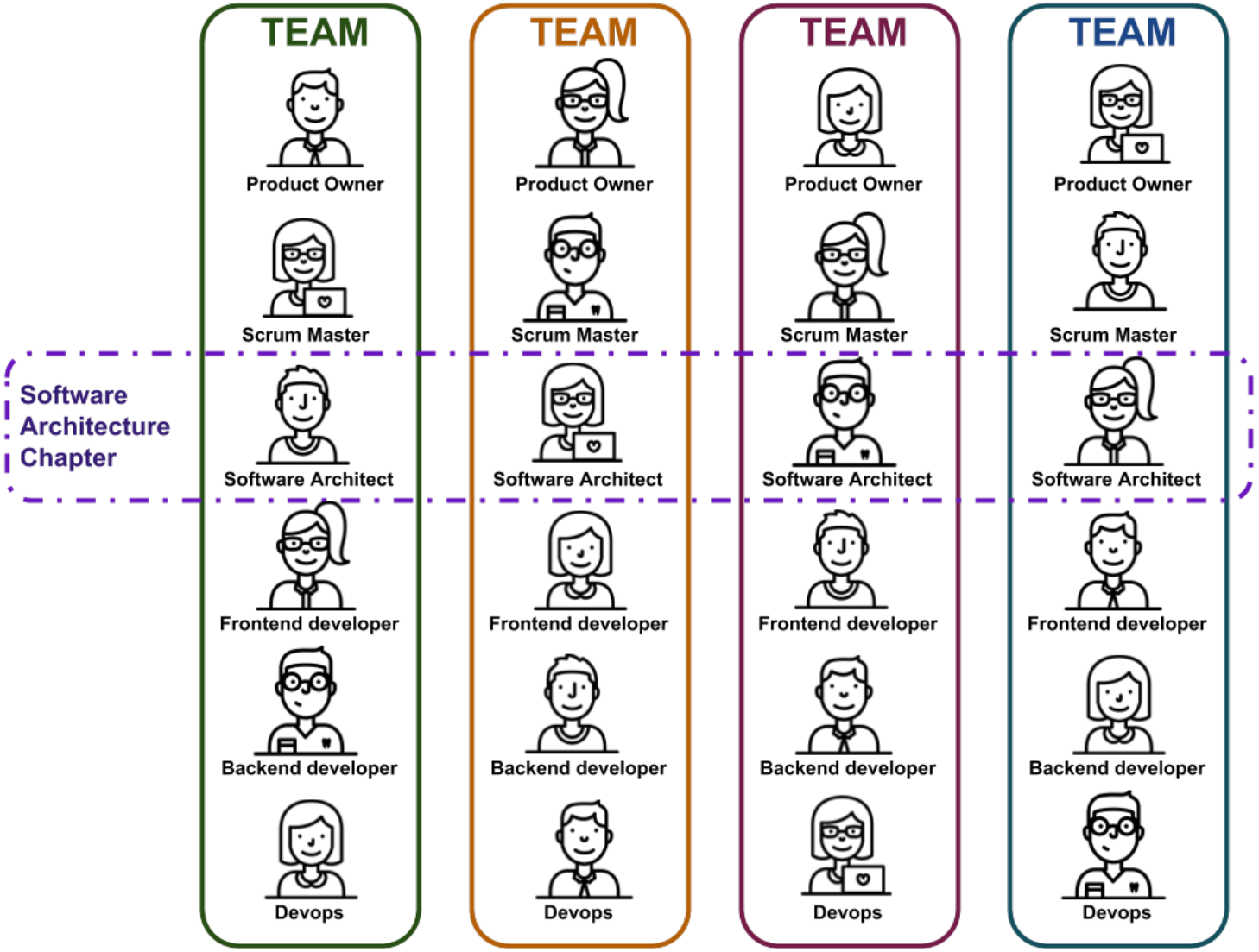
Iterative Model



Scrum in 1 Picture



Multiple SCRUM teams



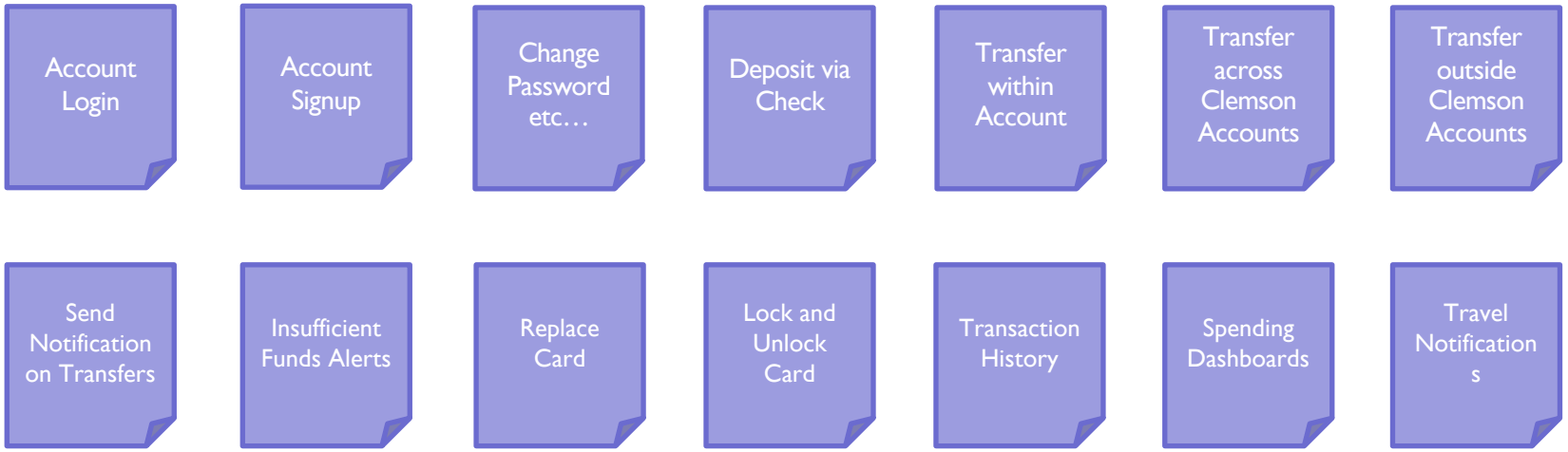
Icons made by Freepik from www.flaticon.com

Design Thinking

Let's take an example....

An online banking system……

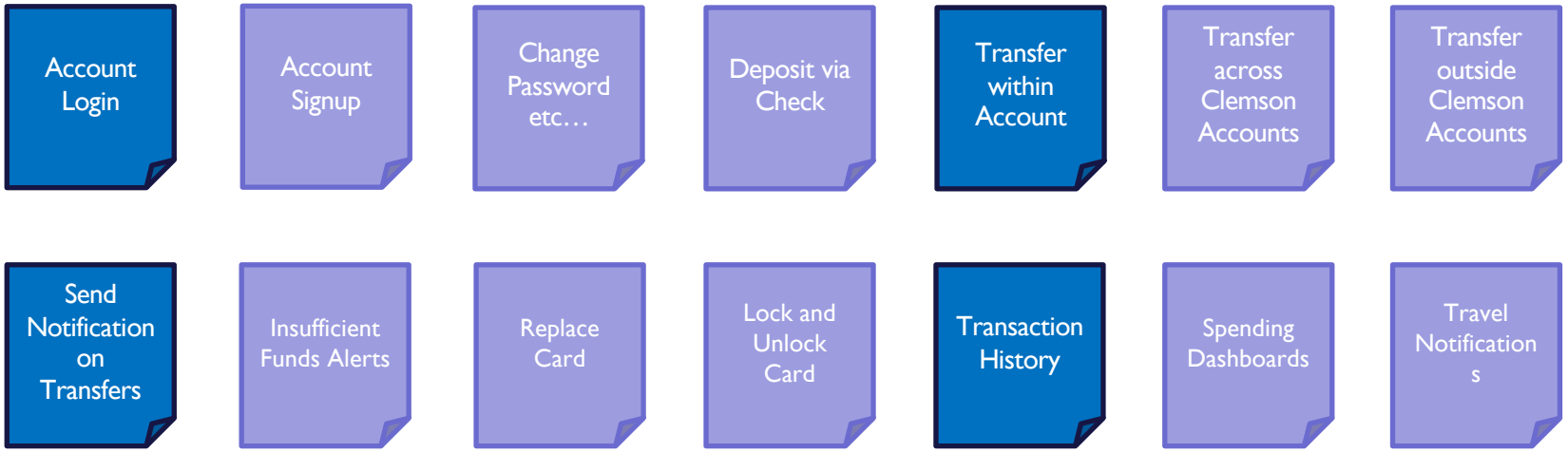
Clemson Bank



Clemson Bank – Release 1

An online banking system……

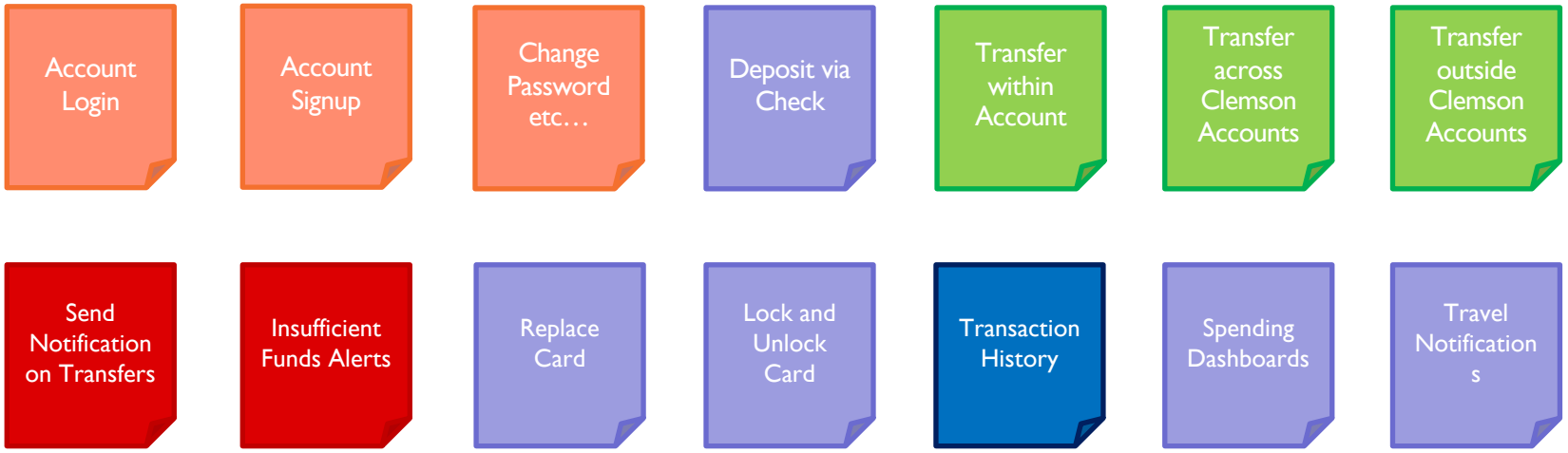
Clemson Bank



Grouping of similar requirements..

An online banking system……

Clemson Bank



Coupling & Cohesion

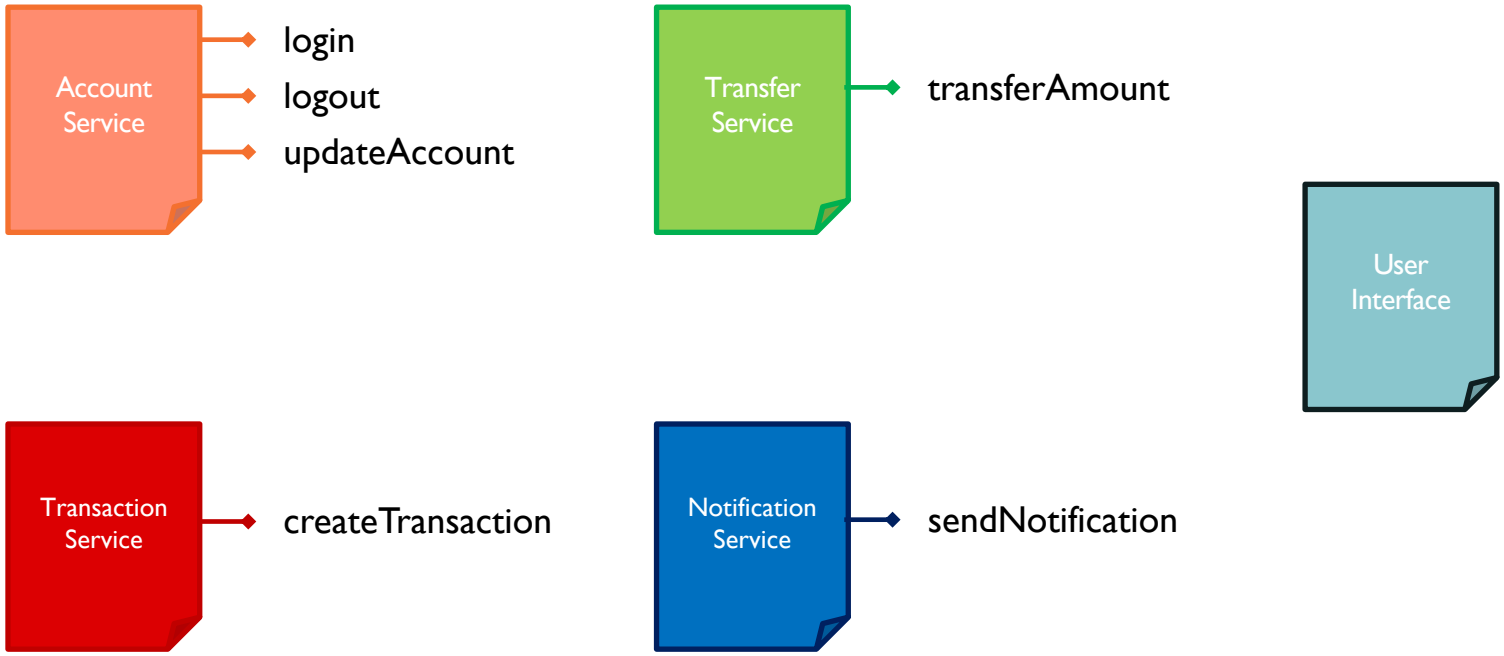
High Cohesion

Low Coupling

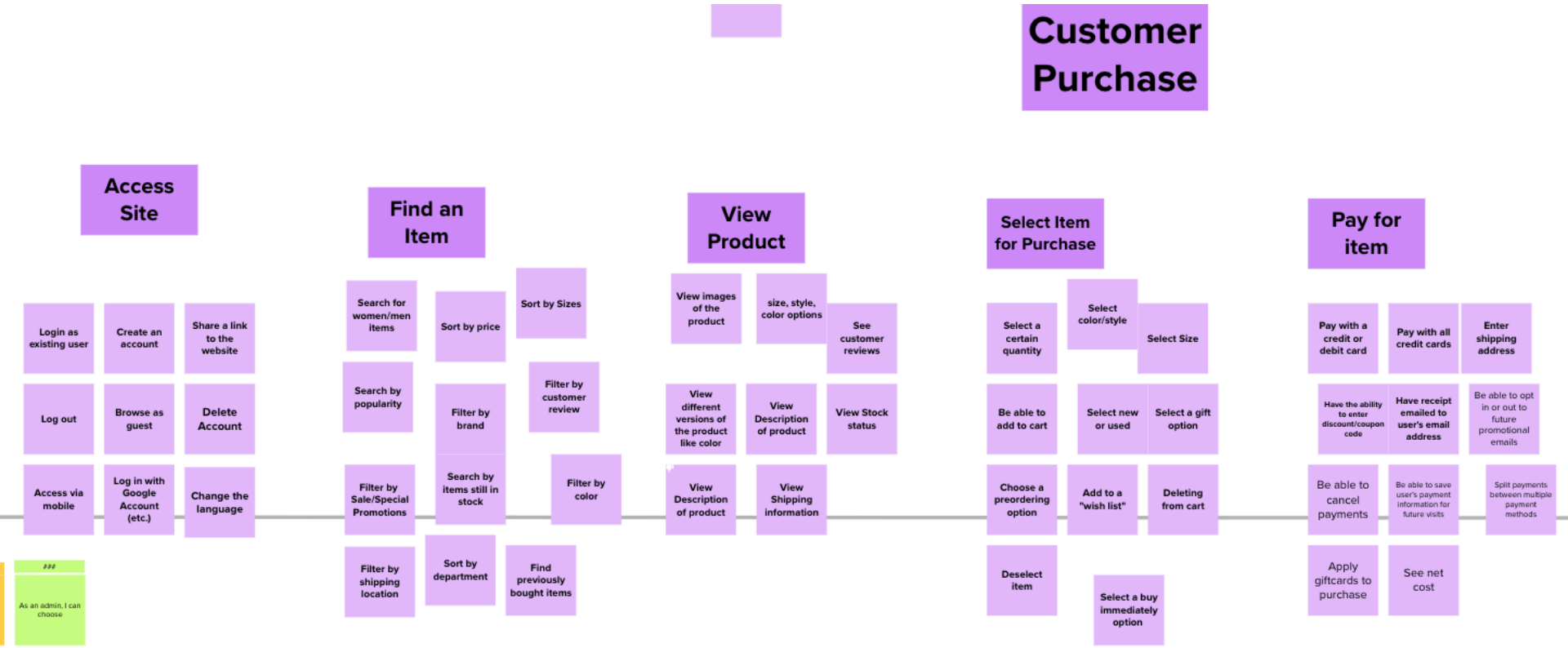
Modules

An online banking system……

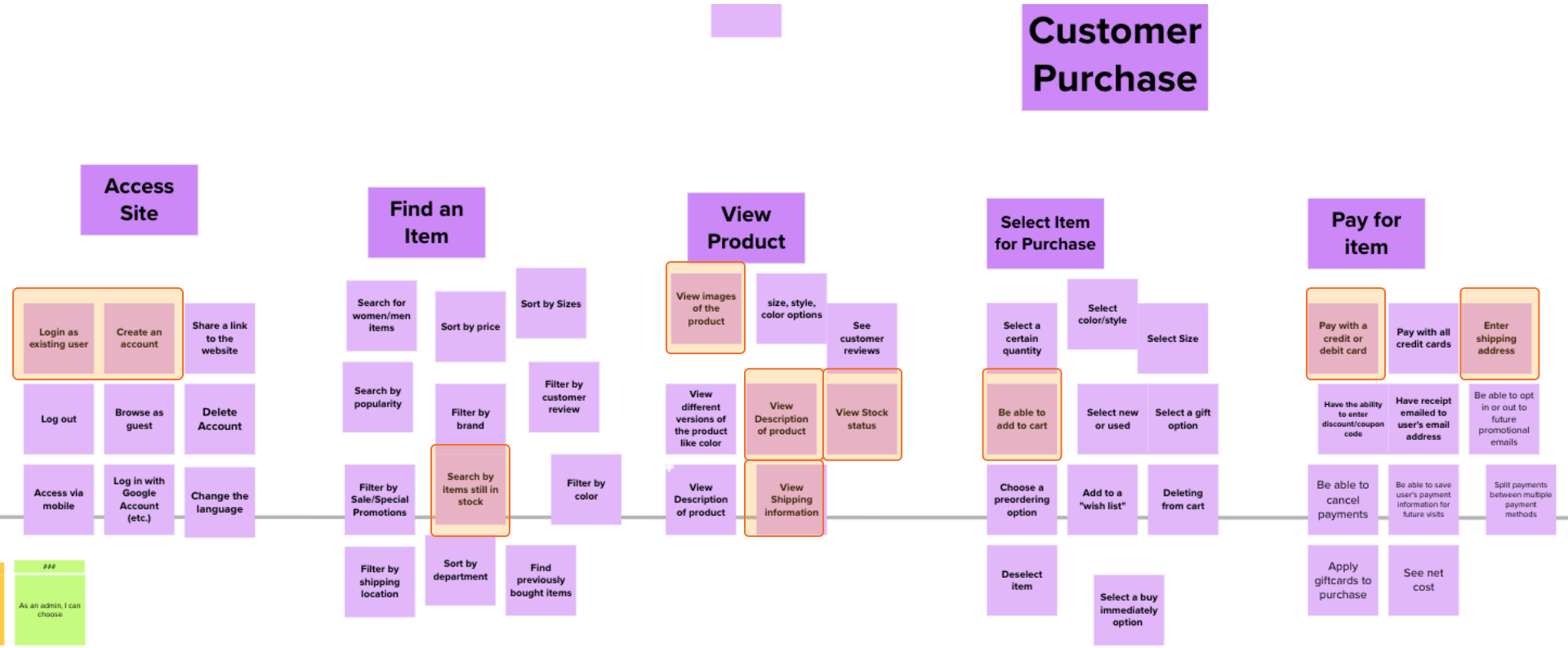
Clemson Bank



CU Sports


Customer Purchase
Access Site
Login as existing user
Create an account
Share a link to the website
Log out
Browse as guest
Delete Account
Access via mobile
Log in with Google Account (etc.)
Change the language
###
As an admin, I can choose
Find an Item
Search for women/men items
Sort by price
Sort by Sizes
Search by popularity
Filter by brand
Filter by customer review
Filter by Sale/Special Promotions
Search by items still in stock
Filter by color
Filter by shipping location
Sort by department
Find previously bought items
View Product
View images of the product
size, style, color options
See customer reviews
View different versions of the product like color
View Description of product
View Stock status
View Description of product
View Shipping information
Select Item for Purchase
Select a certain quantity
Select color/style
Select Size
Be able to add to cart
Select new or used
Select a gift option
Choose a preordering option
Add to a "wish list"
Deleting from cart
Deselect item
Select a buy immediately option
Pay for item
Pay with a credit or debit card
Pay with all credit cards
Enter shipping address
Have the ability to enter discount/coupon code
Have receipt emailed to user's email address
Be able to opt in or out to future promotional emails
Be able to cancel payments
Be able to save user's payment information for future visits
Split payments between multiple payment methods
Apply giftcards to purchase
See net cost

CU Sports – Release 1



Create an account

Login as existing user

Search by items in stock

View Product Details

Add to Cart

Enter shipping address

Pay with Credit Card

CUSports Design Exercise

BREAKOUT ROOM 1:
https://app.mural.co/t/cufall20203720sec23157/m/cufall20203720sec23157/1599781185642/2b6760ccb116fa0977ecbc263f6e54059bdbb5d4

BREAKOUT ROOM 2:
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BREAKOUT ROOM 3:
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BREAKOUT ROOM 4:
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BREAKOUT ROOM 5:
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BREAKOUT ROOM 6:
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BREAKOUT ROOM 7:
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