

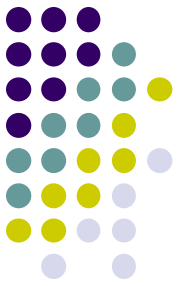
Ubiquitous and Mobile Computing

CS 528: *CouPal*

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- Khulood Alkhudaidi
- Aritra Kundu

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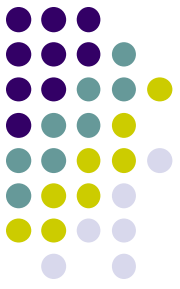




Problem Statement

College students putting themselves through college need to be frugal and significantly depend on discount coupons to save money.





Why is this problem important?

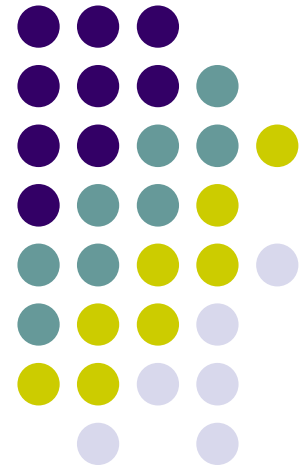
- College is expensive & coupons save money
- Too many coupons! How do I find them?
- Every college student has a smartphone



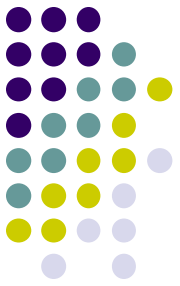
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Background Research



Background Research



Rakuten



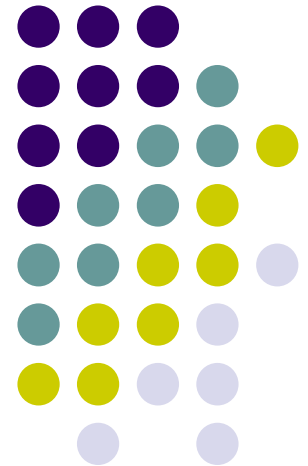
shopkick

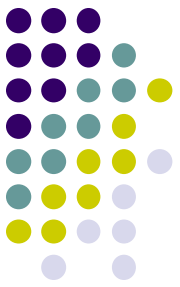
livingsocial

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Methodology





Solution: CouPal

A platform to help students find coupons based on location, interests and purchase history, and share those coupons with friends



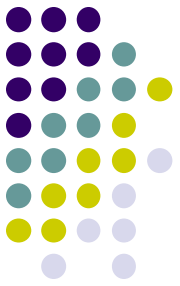
**Spare and Share
a couple of bucks**



CouPal



Find Coupons



Search



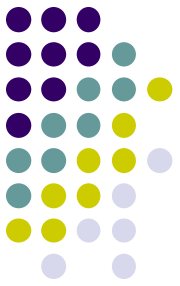
Location



Interests



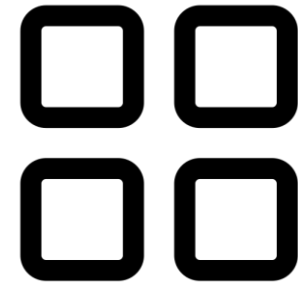
Manage Coupons



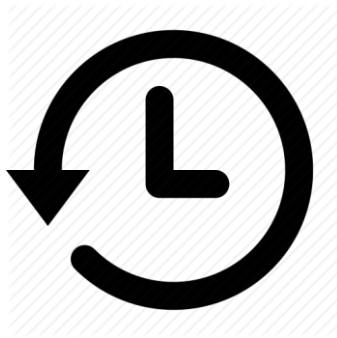
Favorite



Delete



Group - Sort



Recent



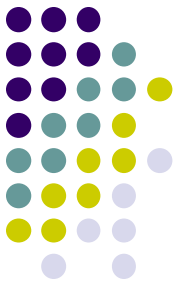
Notification



Expire



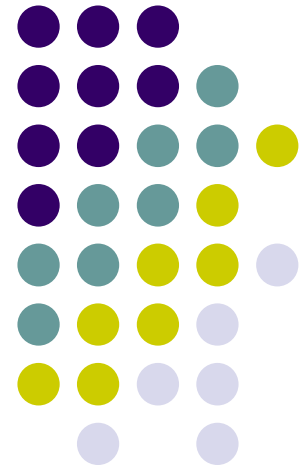
Share/Add Coupons



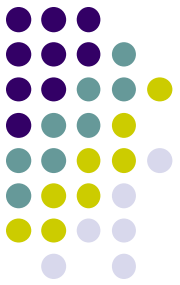
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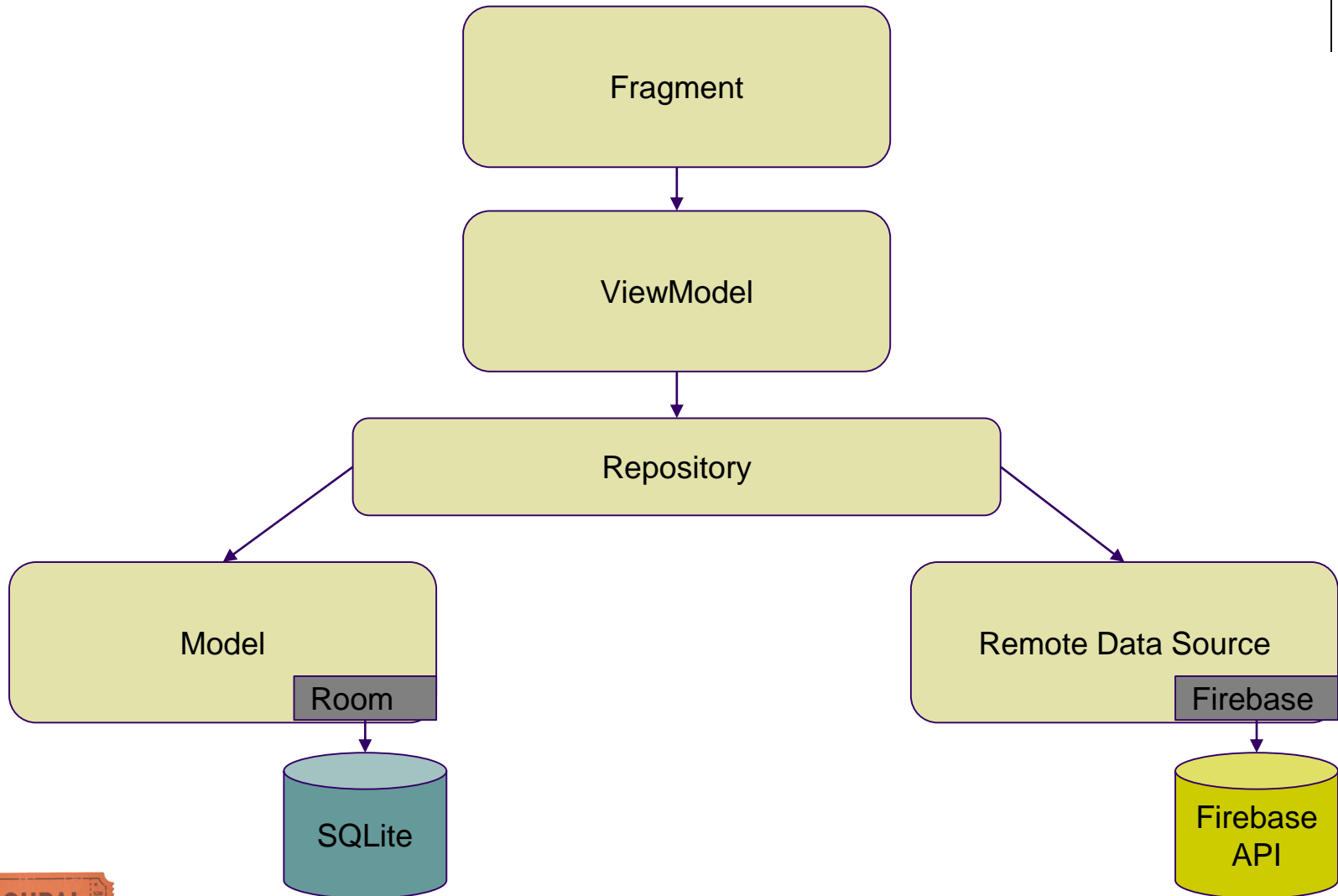
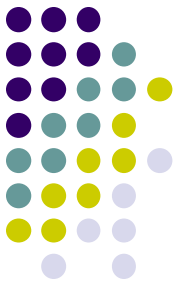
Implementation Plan



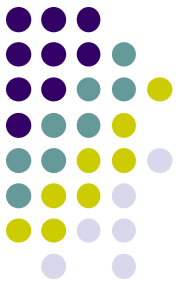
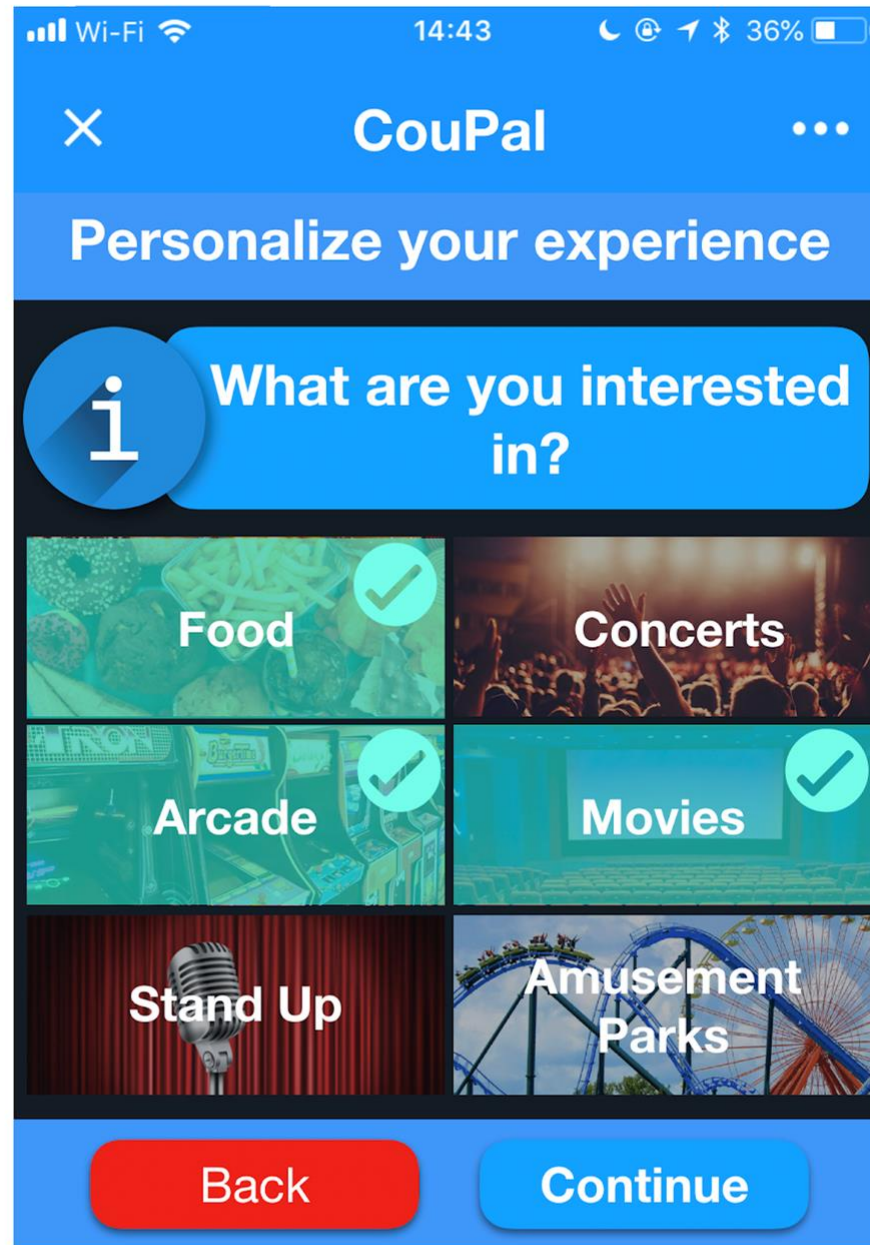
Primary Frameworks



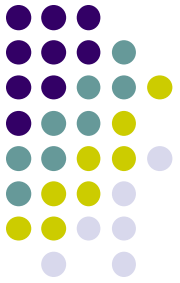
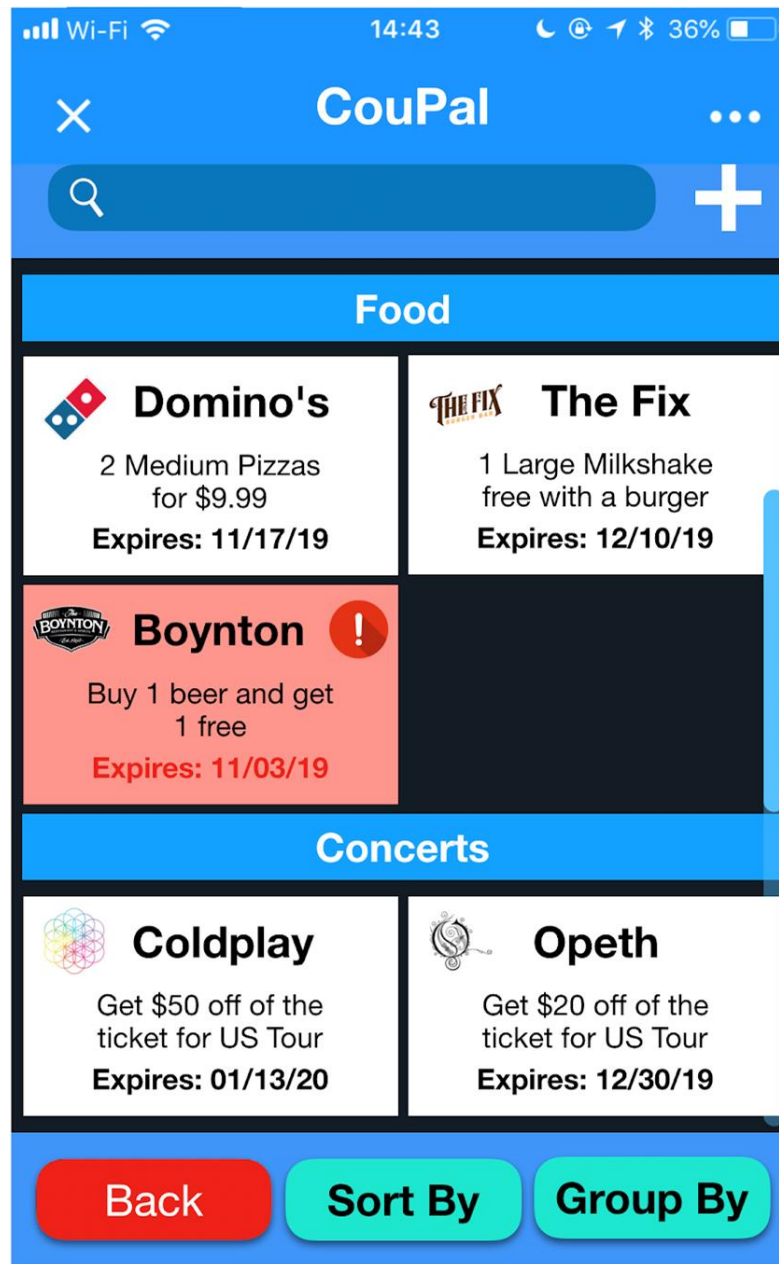
Architecture



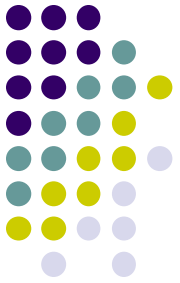
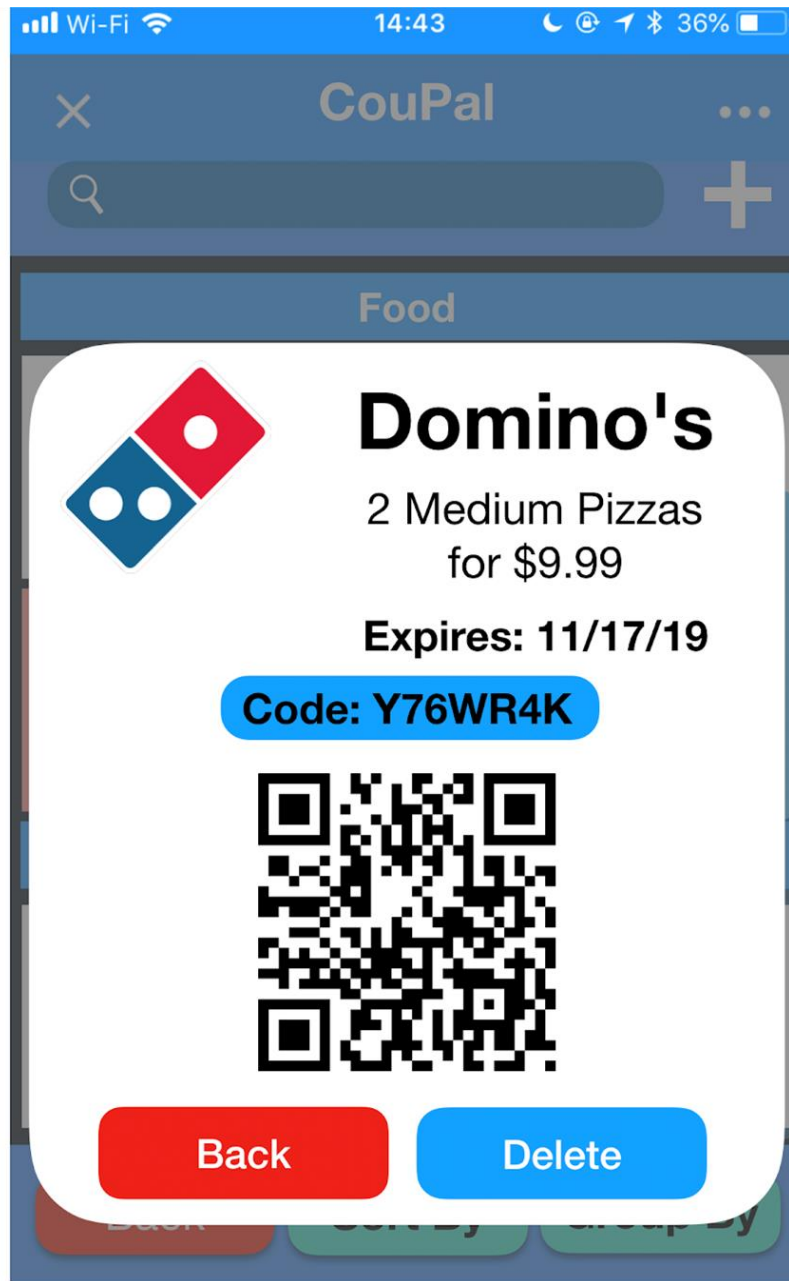
Layout



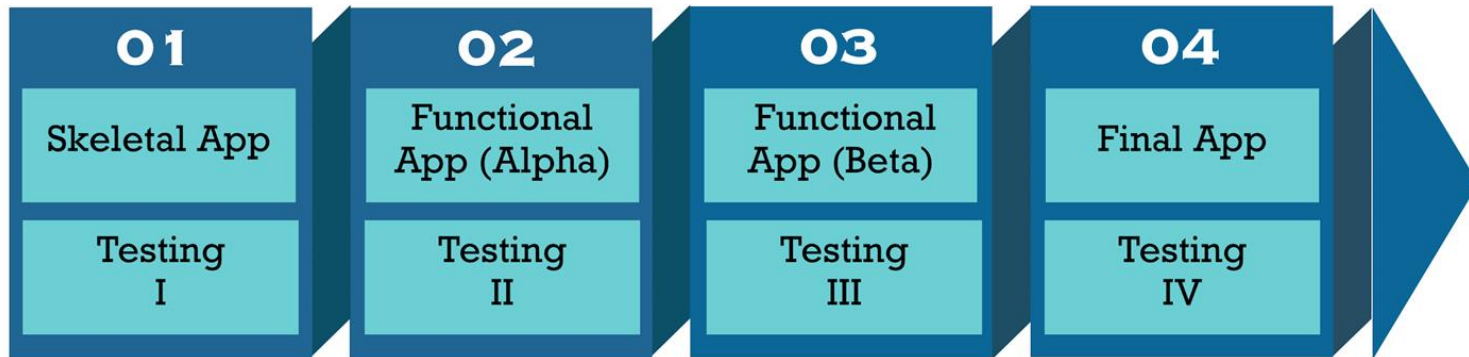
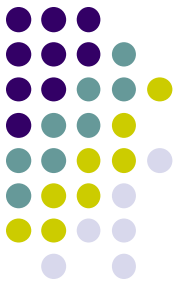
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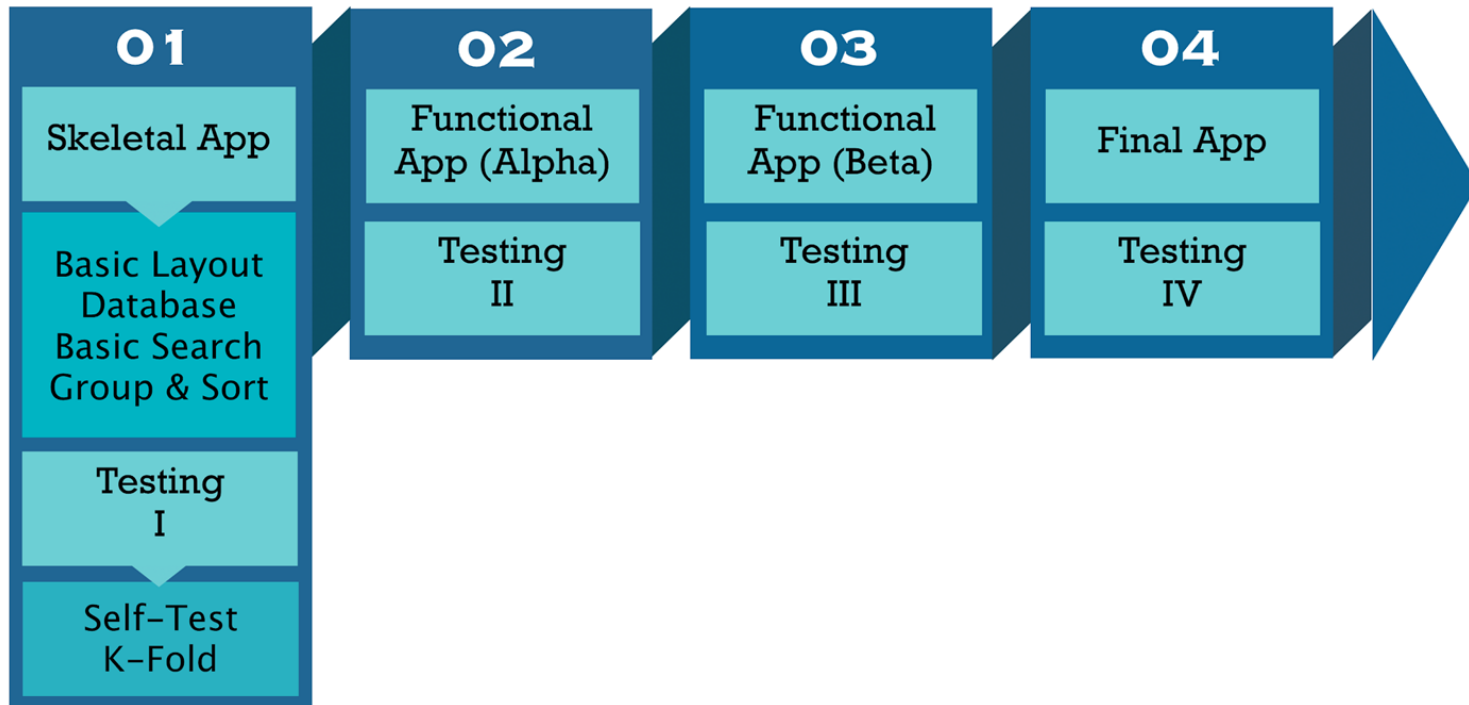
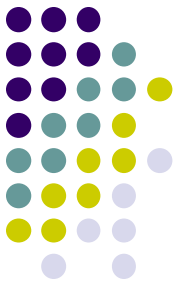
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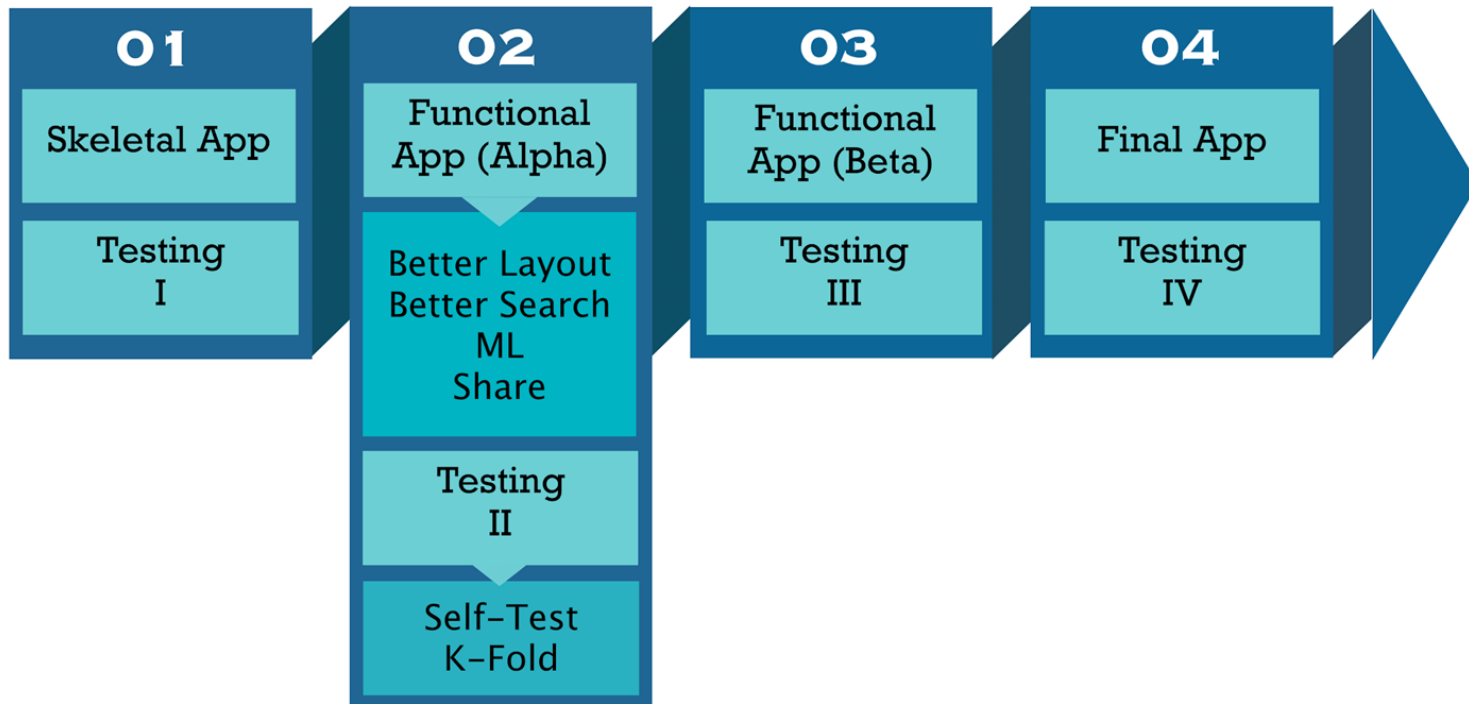
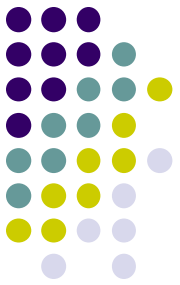
Timeline



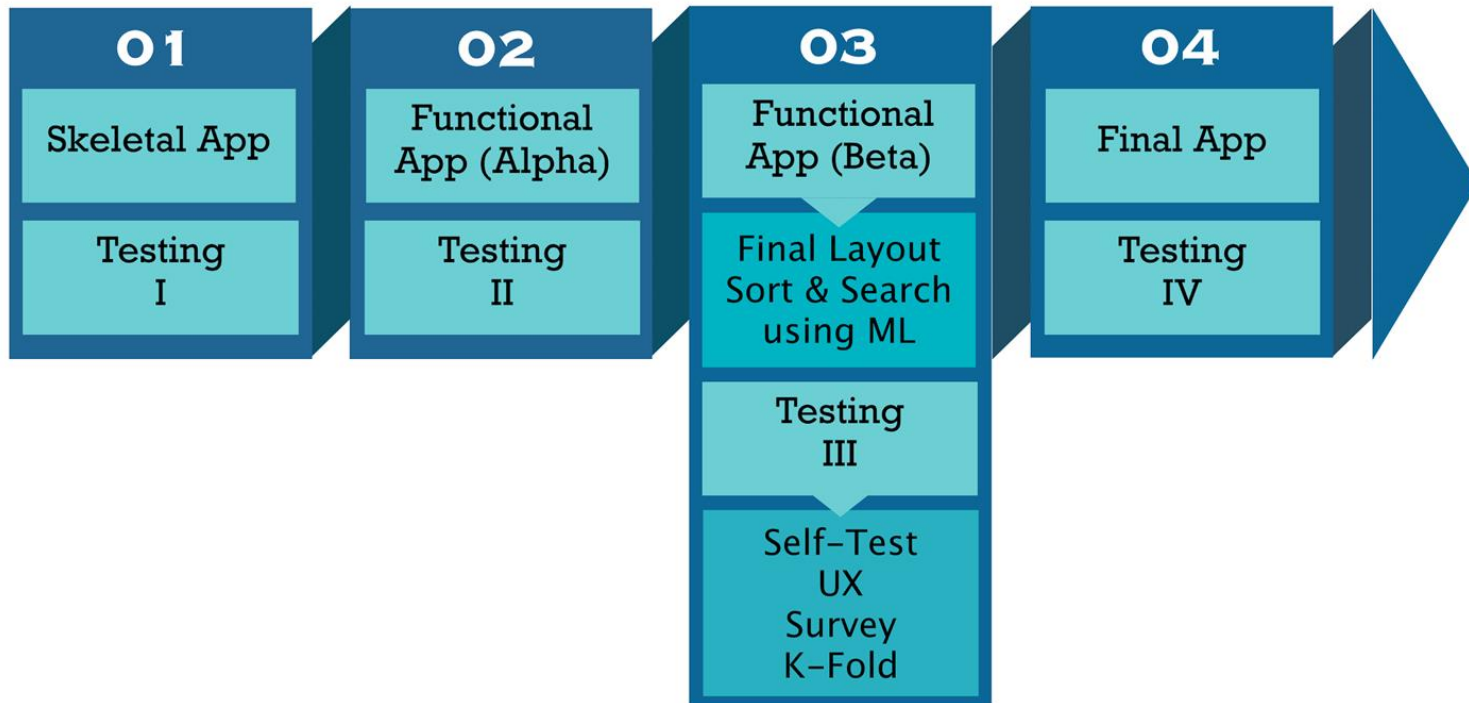
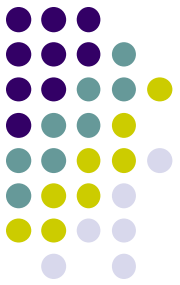
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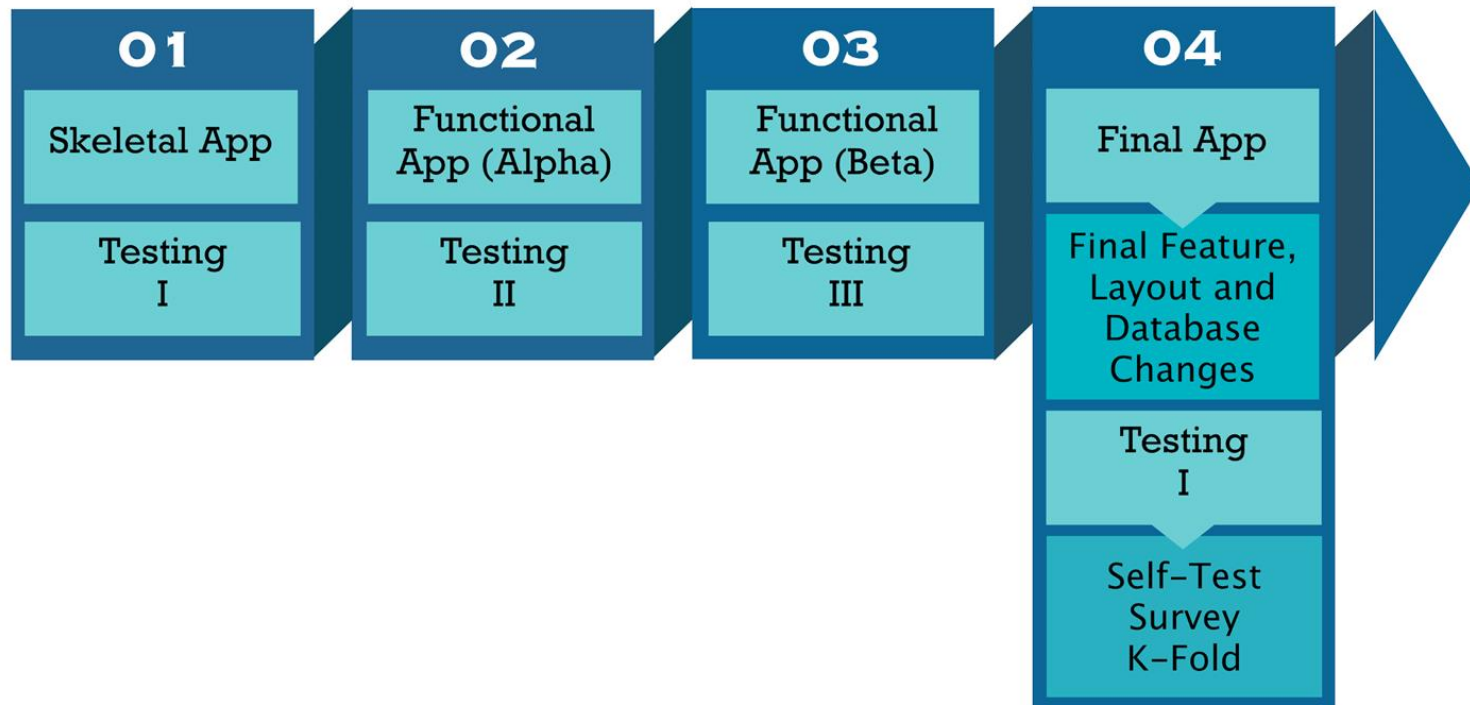
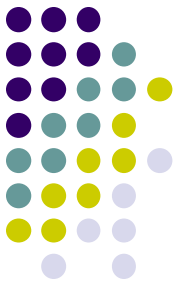
Timeline



Timeline



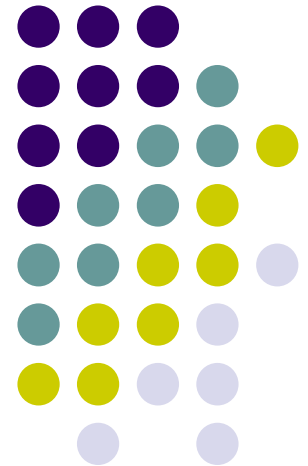
Timeline

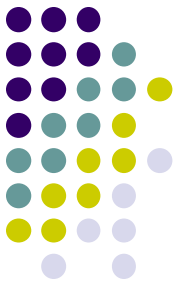


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Evaluation Plan

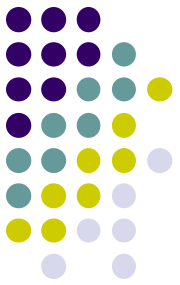




Evaluation Plan

- Iterative Self Testing
- Surveys
- User Experience (UX) testing
- K-Fold Cross Validation





Difficulty Points (36)

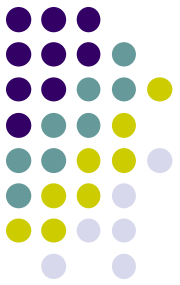
- Difficulty Level 1 (4)
 - 5 Screens.
 - Maps.
 - Location Sensing.
 - REST APIs to pull coupons from.
 - SMS for sharing coupons.
- Difficulty Level 2 (6)
 - Awareness API.
- Difficulty Level 3 (10)
 - ML for recommendation system and user clustering.

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Questions?





References

Montaldo, D. L. (2019, June 25). Why It Pays Off to Use Coupons. Retrieved from <https://www.thebalanceeveryday.com/why-consumers-should-use-coupons-939628>

Shah, M. (2019, June 10). How to Apply Machine Learning (ML) in an Android App. Retrieved from <https://towardsdatascience.com/how-to-apply-machine-learning-ml-in-an-android-app-33e848c0dde6>

