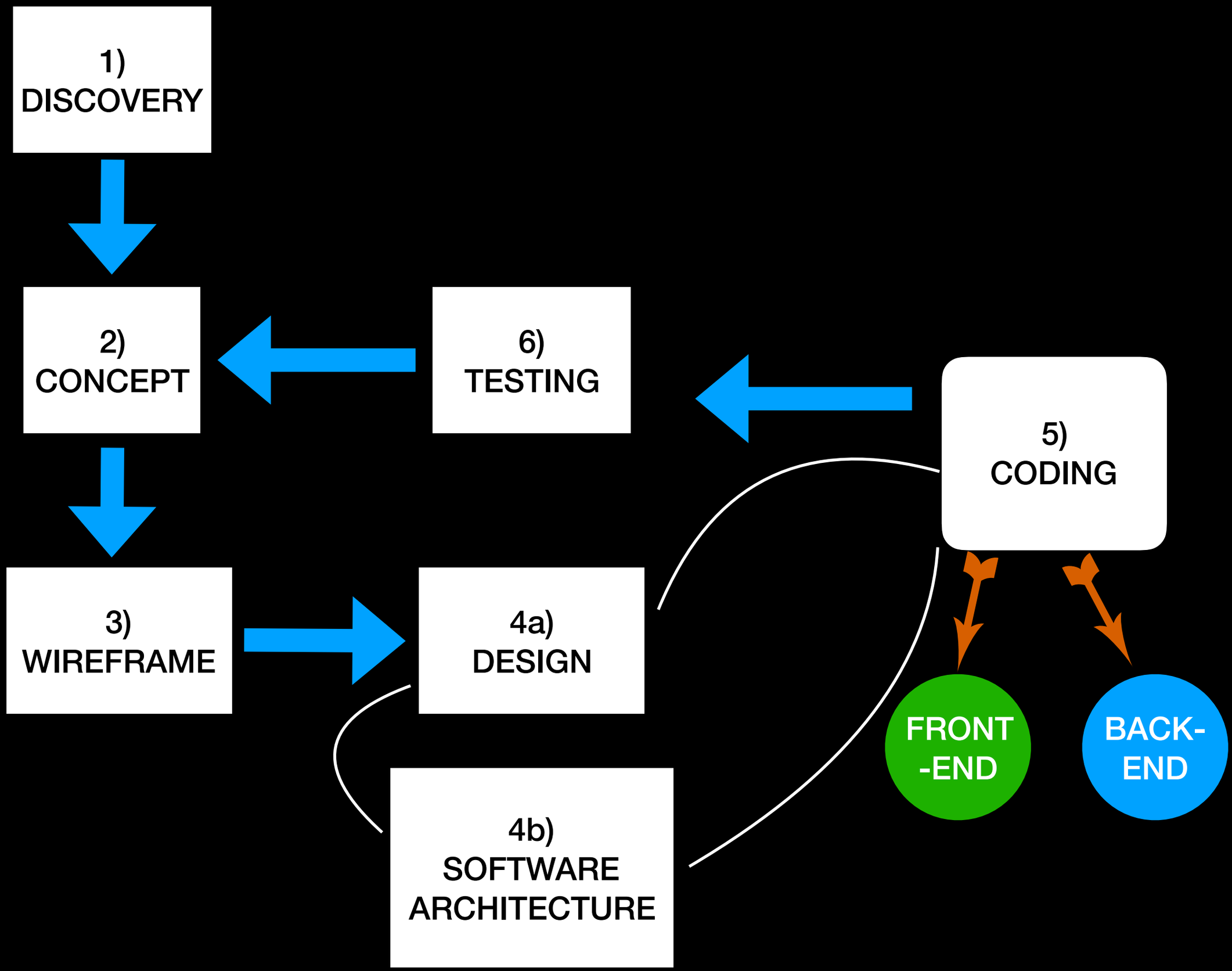
First Principle Thinking

iOS App Development

DECONSTRUCTING AN iOS APP



1) DISCOVERY PHASE

Q1) What problems are we trying to solve?

Q2) What else is there in the market?

Q3) What does the audience demand?

Q4) Identify your audience.

Q5) How does building an application in iOS differ from Android application?

2) CONCEPT PHASE

1) What the requirements of the app?

2) Whether Server-side Integration is needed or not?

3) Will the application be written in Objective-C, Swift, or be a hybrid app?

4)How do you integrate Data Structures like Stacks and Linked Lists when you design apps?

5) Do you have an Apple Developer Account to publish the app?

6) Which implementation to be used in constructing the app?

7) Which Data Structures to apply?

8) Are the Technical spec document and Business logic of the app compatible with each other? (They should be in a maximum efficient co-ordination)

3) Wireframes

1) A good wireframe hinges on excellent UX as well as UI Design. So, how can we improve both?

2) Establish a streamline flow of what goes as input in the app and user experience with wireframes

4) DESIGN PHASE

1) Consider different angles to how the app looks and how it works?

2) Learn from the other half:

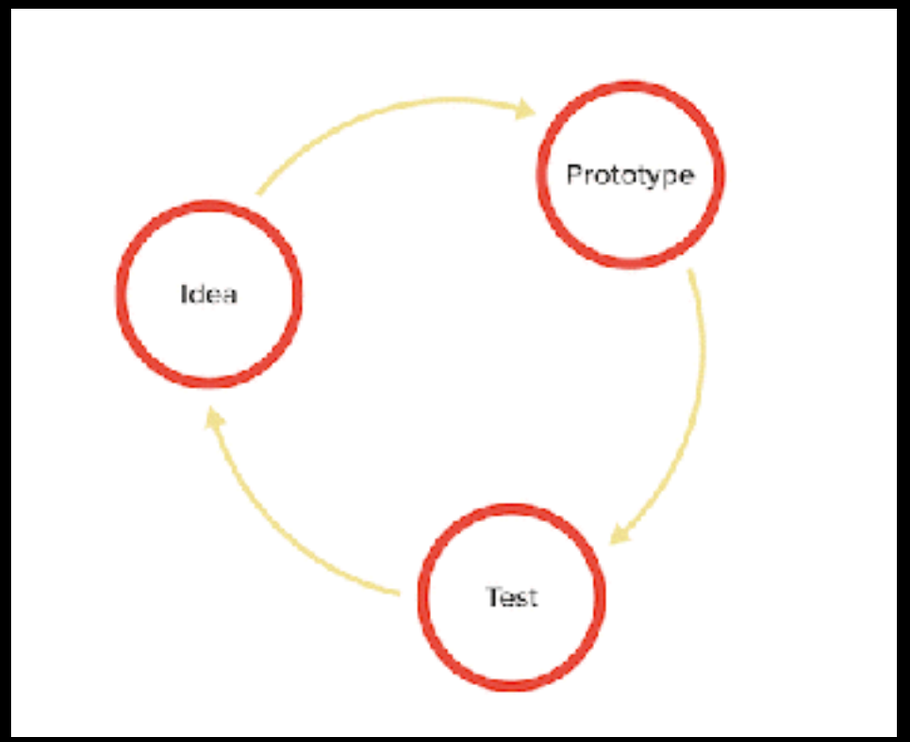
The success of an app depends on both the designer and the developer, who must work together to innovate and achieve the highest level of quality.To accomplish this while working efficiently, you can shorten iterations by working in parallel. For this to work, both must be conscious of the complexities of the design as well as of the actual implementation.

3) What does User Interface(UI) Design look like?

4) What User Experience(UX) has been implemented?

5)Lean UX:

As professionals we can no longer afford to spend weeks or months on detailed fancy designs before launching a product. This is where Lean UX comes into play.



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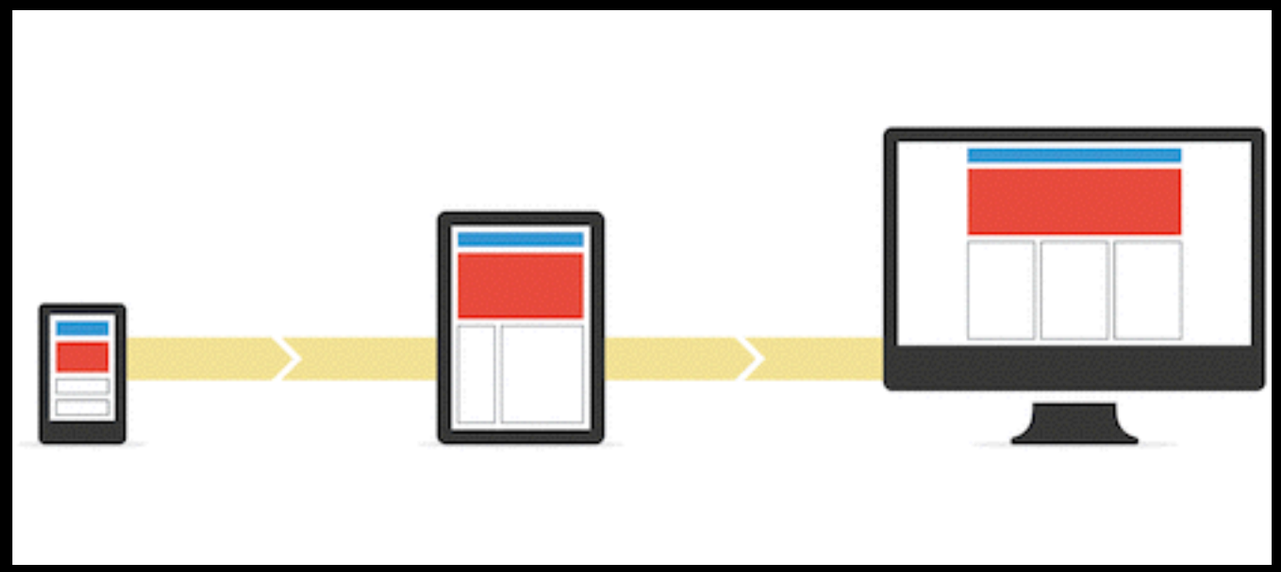
- Lean UX is based on constant iteration in a never-ending cycle. Thus, app design can’t begin with interface design in Photoshop or Illustrator. It has to start before that, with wireframe-based prototypes and basic designs. That way, if change is necessary, it will take moments — not months — to apply.



"Mobile first" is based on designing for the smartphone as a starting point, before moving to larger screens.

6) What are some of the good strategies to apply?

Sol> “Mobile First" or starting with the small screen is a very good approach. Starting the design process from a mobile standpoint forces us to prioritise, choose and above all alter our mentor structure, which is accustomed to large screen of desktop.

7) Has every single point of the design structure been prototyped? (Use Visual Programming to prototype)

8) Lastly in design, it is recommended that developers start working on projects without even using the computer, but instead by simply drawing on paper. It sounds so natural that we often forget it’s even a possibility. Designing like this has proven to be very useful earlier also.

5) CODING PHASE

1) How do we integrate Data Structures like Stacks and Linked Lists when we design apps?
For example, the multiple threads/screens which are displayed on app screen are simulated by the stack behaviour, while network integration is handled using queues

2) What features of Swift make it robust for iOS design?

3) As this is the most complex phase, what can be done to reduce the iterations and increase processing time?

4) iOS apps are built with the Cocoa Touch framework. Can we implement frameworks like Bootstrap, jQuery Mobile etc. which are useful in building hybrid apps?

5) Can we change Apple's IDE Xcode and implement alternatives like Interface Builder?

6) A lot number of skills are also required for this phase. How can we make it by minimising the skills and maximising the result?

6) TESTING PHASE

1) What are Black Box and White Box testing techniques?

2) What are scopes for improvement in White Box testing as it concerns the overall structure of the program?