



UNIVERSITAT DE
BARCELONA

Software Integrated Project (2019-2020)

Project Proposal

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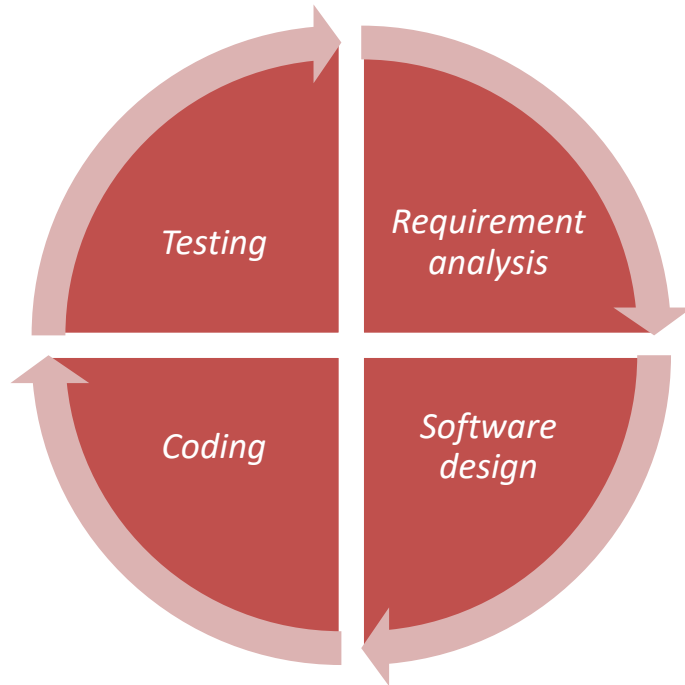
Last Week



Objectives

1. Learn to develop a mobile app in Android
2. Integrate multiple disciplines of computer science
3. Integrate different roles in software development cycle
4. Learn to work in a team
5. Learn to consider user requirements and market demands
6. Learn to communicate results and promote software tool
7. Learn to employ critical thinking in software development

Development Lifecycle



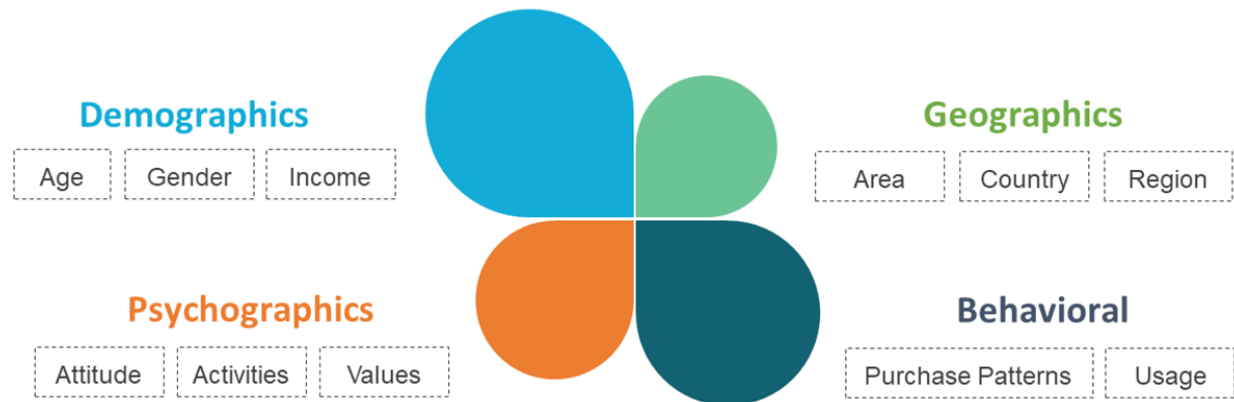
Requirement Analysis

Accounting Software Requirements Checklist with GAP-Fit Analysis	Importance/Priority	Process (Category)	GAP Analysis	GAP Source (Location)	Requirement Type	GAP Score
For HELP, place the cursor in desired column Cell on this row:						
(Return to Top)						
MOBILE APPLICATIONS						
BASIC INFORMATION						
Do you need mobile payment app to accept credit card payments?	3	D	GAP	BP	F	3.00
Do you need the ability to apply the payment to an invoice once the transaction in ?	3					
Do you need to create invoices?			GAP PG NG			
Do you need to automatically send out to mobile users late payments reminders?						
Do you need the ability to create estimates and quotes?						
Do you need the ability to track the following:						
• Payments:						
• Partial payment:						
• Overdue invoices:						

Gap Analysis
Indicates the presence and degree of a requirements GAP:

GAP = Full GAP
PG = Partial GAP
NG = No GAP, in use

Market segmentation



Testing

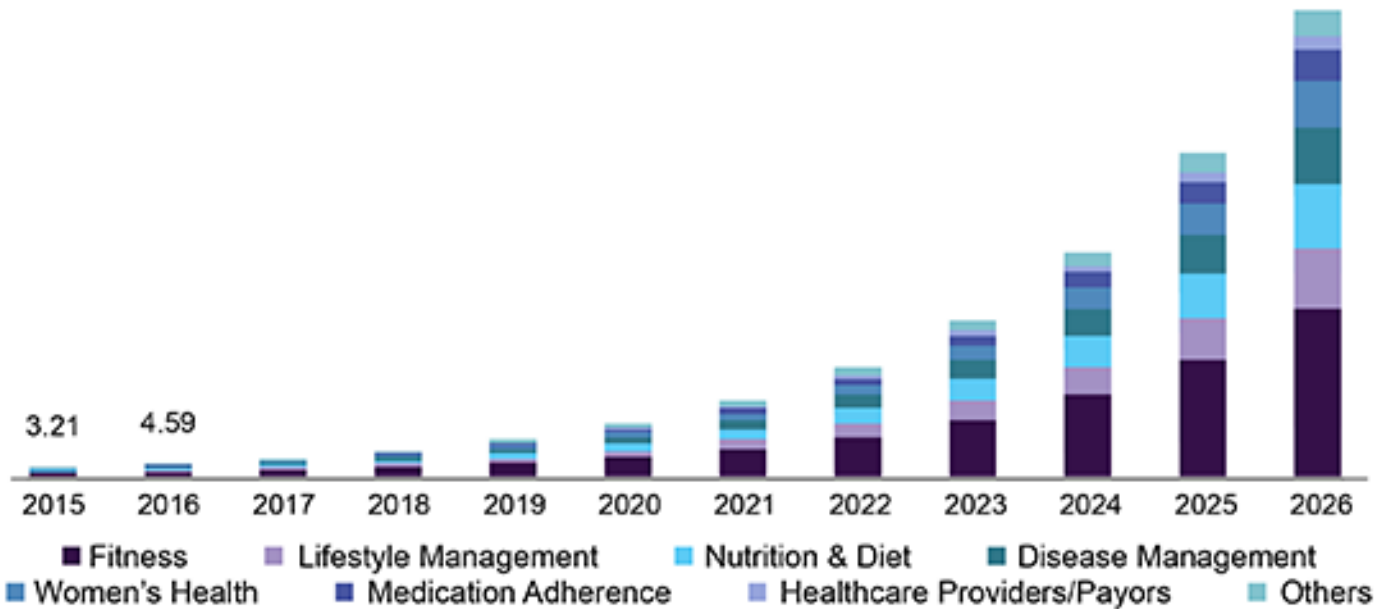
MOBILE APP TESTING CHECKLIST





Market Analysis

U.S. mHealth apps market size, by type, 2015 - 2026 (USD Billion)



Source: www.grandviewresearch.com

Teamwork



- Support each other
- Common goal
- Complimentary roles



Communication Skills



<https://www.youtube.com/watch?v=MnrJzXM7a6o>

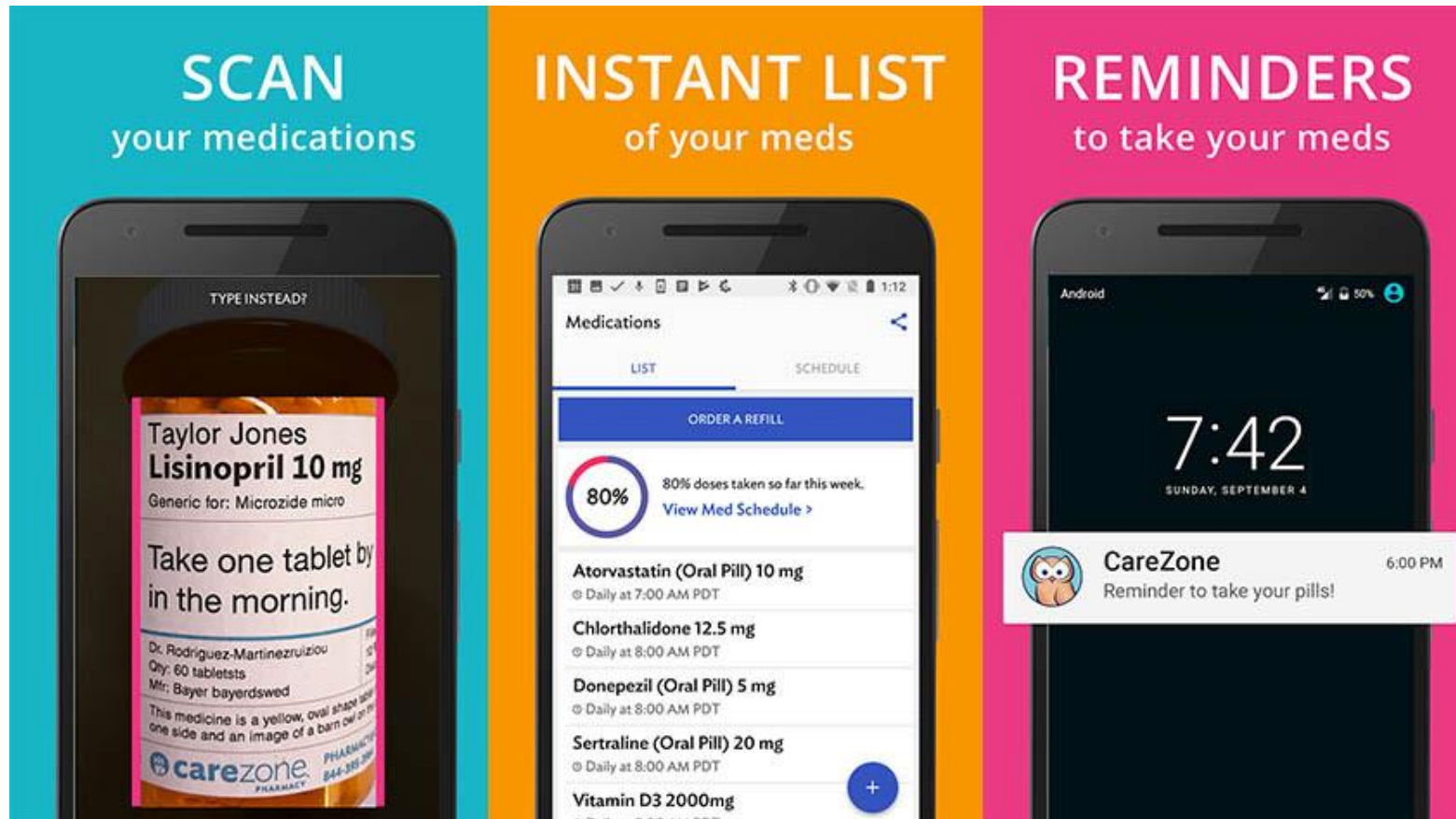


Assessing Success

1. Number of hours of coding per person & per week
2. Percentage of time spent on each discipline
3. Percentage of time spent on each role
4. Distribution of tasks, frequency of interactions
5. User rating. 5-year market value
6. Expected usage or sales
7. Number of changes to the software design

Theme: mHealth

Carezone





Main Steps for Project Proposal



New Projects

1. Starts with an idea
2. Title: For communication and branding
3. Mock-up: For visual communication and demonstration
4. Measurable objectives
5. Risk-benefit analysis
6. Methodology and planning (resources, timeline)
7. Start development cycle (requirements, design, etc)

Methods for New Ideas

- Building on previous experience
- Building on previous results
- Building on existing feedback
- Reading (e.g. scientific publications)
- App market evaluation
- Attending software/app fairs and events
- Teaming with someone with ideas
- Long-term, iterative, multi-stakeholder brainstorming



Methods for New Ideas

- Criteria for a good idea:
 1. Needed
 2. Novel / original
 3. Usable / applicable
 4. Feasible (can be implemented in reasonable costs & time)
- Ideally, the developers should feel passionate about the idea and app
- A nice idea for an app will not necessarily translate into sales!!





Title

- Ideally, a nice, short, sound and catchy name
- A lot of successful apps have terrible names



PISAPP

InfinitySoftware

IntegratedSquad

ProjectOmix

ProjectNest

ProjectDragon



Problem / Solution

■ Problem:

- Describe the problem clearly (e.g. societal or health problem)
- Indicate that there is a demand and a market gap
- Use indicators, statistics, references

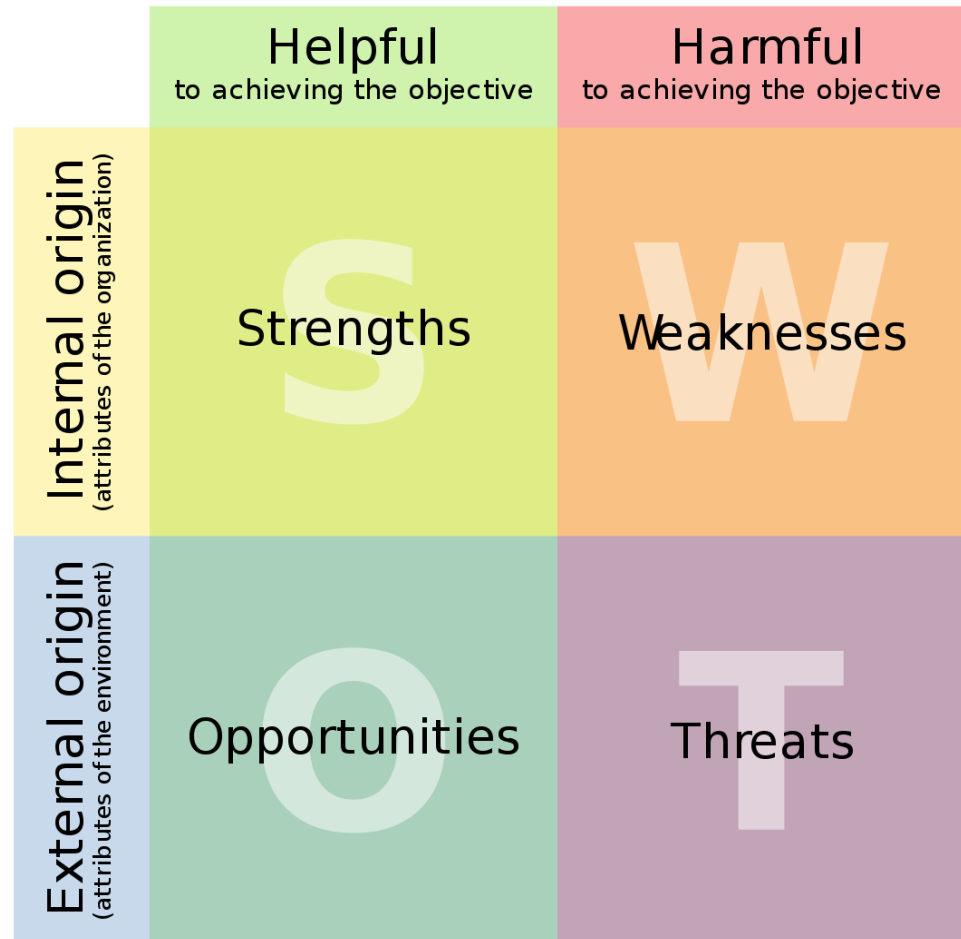
■ Solution:

- Clearly describe the proposed app and its potential users
- Use infographics or mockups



Risk-Benefit Analysis

SWOT analysis
(Calculated risk)



Key Indicators / Measures

- Measures of project feasibility
 - Available time needed to complete the software
 - Available human resources
 - Available code that can be re-used
- Measures of app success
 - ✓ User rating
 - ✓ Number of users
 - ✓ Number of downloads per day/month
 - ✓ Performance indicators (e.g. accuracy)
 - ✓ Number of datasets generated per week





Planning

- Timeline planning: Use GANTT Chart

Task Name	Q1 2019			Q2 2019		Q3 2019
	Jan 19	Feb 19	Mar 19	Apr 19	Jun 19	Jul 19
Planning						
Research						
Design						
Implementation						
Follow up						



Planning

- Allocation of tasks, roles and leaderships
 - KL will lead the requirement gathering
 - AB will lead the software design
 - CD will coordinate the implementation
 - EF will test the software
 - OP will test user acceptance
 - XY will be the project manager
 - WZ will be the technical lead



Calendar

Week	Date	Topic	Delivery
1	12 Feb	Introduction	Group compositions
2	19 Feb	Project proposals	Individual proposals
3	26 Feb	Requirements gathering	Team proposals
4	04 Mar	Proposals presentations	
5	11 Mar	Healthcare apps: Interfaces & data	User interface
6	18 Mar	Interfaces presentations	
7	25 Mar	Visit from software company	
8	01 Apr	Partial exams	
9	08 Apr	Semana santa	
10	15 Apr	Presentations / discussions	Software design
11	22 Apr	Presentations / discussions	
12	29 Apr	Fira d'empreses	Demo
13	06 May	Metafest - Infofest	
14	13 May	Presentations / discussions	Inter-group feedback
15	20 May	Presentations / discussions	
16	27 May	Presentations / discussions	Final project



That's all folks!!