


CSIS 3375 – 001

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Kandhadai
(Priya)



CSIS 3375

Course Overview

Prerequisites:

CSIS 3175

Instructor:

Padmapriya Arasanipalai Kandhadai (Priya)

Class Times:

Th: 9:30-12:20PM N5111 (first week – online)

Email:

kandhadaip@douglascollege.ca

Office Hours:

Tu, Thu: 1:00-2:00 PM,
Or by appointment (need to email before meeting online on zoom)



Course Description

- Learn and explore developing mobile applications from the perspective of man-machine interaction
- Understanding user experience and interaction design concepts.
- Areas:
 - essentials of designing interactive systems,
 - techniques for designing interactive systems,
 - contexts for designing interactive systems,
 - foundations of designing interactive systems.

Course Materials

- ***Recommended Texts:***

- The \$1 Prototype: A Modern Approach to Mobile UX Design and Rapid Innovation for Paperback – by Greg Nudelman [Published March 10, 2015]
- Android User Interface Design: Implementing Material Design for Developers by Ian G. Clifton, 2nd Edition

Course Materials

- ***Online course materials***
 - All instructor materials, resources and communications such as announcements, lecture slides and other such documents will be shared through the Douglas College Blackboard Community.
 - All assessments will be created through Blackboard and will have to be submitted through Blackboard.
[No exceptions will be made]

Course content

Designing interactive systems

- Understanding need for Mobile UX Design
- Learn and apply Framework and Process for designing interactive systems
- Understand principles of Usability
- Fundamentals of Experience Design

Design Techniques

- Understanding
- Envisionment
- Design
- Evaluation
- Task analysis
- User interface design



Course content

Design Context

- Social media
- Collaborative environments
- Understanding, design and evaluation of Mobile computing

Psychological Foundations of UX Design

- Memory and attention
- Cognition (distributed and embodied) and action
- Social interaction
- Perception (visual and non-visual) and navigation

Android User Interface Design

- Learn, understand and apply UX design principles to Android Layout
- Focus on design principles of form and function rather than the implementation

Evaluations and Assessments

Assessment	Percentage
Midterm Exam	30%
Group Project	30%
Final Exam	40%
Total Grade	100%

****In order to pass the course, students must, in addition to receiving an overall course grade of 50%, also **achieve a grade of at least 50% on the combined weighted examination components (midterm, final exam) AND must ATTEND final exam.****

Final exam schedule: Check the final exam schedule for potential scheduling conflicts ** don't make travel arrangements until final exam schedule is released**

Course policy: Academic Integrity

- ZERO tolerance for cheating, plagiarism, dishonesty
- Academic Fraud: any impersonation
- CHEATING: DO NOT copy or attempt to copy any material from any student, or any other source during exams
- PLAGIARISM: submitting other's work as own work; self-plagiarism
- All parties will be penalized (so be aware that if you share your materials, you will be penalized)
- Will be taken straight to the dean
- Will get a zero in assessment, and will be formally investigated



Course overview - policies

- Timeliness:
 - Students are expected to be here at the start of the class
- Exams:
 - In class as per schedule
 - No exceptions – will get a 0 if you miss it
 - No make up exams and quizzes
- Projects:
 - Must be done in groups of 2 or 3
 - If you decide to do it alone, need prior permission (will be evaluated in the same way as groups)



Course overview - policies

- Illness and other unavoidable circumstances:
 - Medical and supporting documentation
- Preparation, Attendance and Participation:
- Phones and wireless devices:
- Emailing your instructor:
 - Check the syllabus, blackboard announcements before emailing me

Course overview - policies

- Douglas College Calendar and policies and procedures relating to appeals, petitions and formal complaints, sexual and personal harassment, standards of conduct, violence and academic honesty.
 - <http://www.douglascollege.ca/about-douglas/governance/policies>
- Academic Integrity
 - Cannot stress enough: ZERO tolerance for cheating, plagiarism, dishonesty



Course Outline

- Registered students: can see tentative course outline on blackboard

Questions



Designer vs. Developer

- <https://www.youtube.com/playlist?list=PLeU4wvXb5RDKR6h9nWlzQu8tH1SAiBrsq>




MOBILE UX DESIGN



The lens of a software developer

- How many of you like to develop software applications?
- Why do you like to develop software?
 - Finance: Make money as a programmer/engineer
 - Innovation: Create a product
 - Step-by-step puzzle/problem solving
 - Hobby



Mobile applications: By humans For humans

- Make life simpler
- Make life easier
- Make life richer
- Make life more engaging
- Make life more fun
- Make like happier

Don't we all like...

- things that get the job done
- things that get the job done well
- things that look good (to us)
- things that make us happy

AND DOES ALL THESE THINGS ALL THE TIME ??

WT(F) is UX Design?

FORM



FUNCTION



FEEL



Assessing mobile app utility

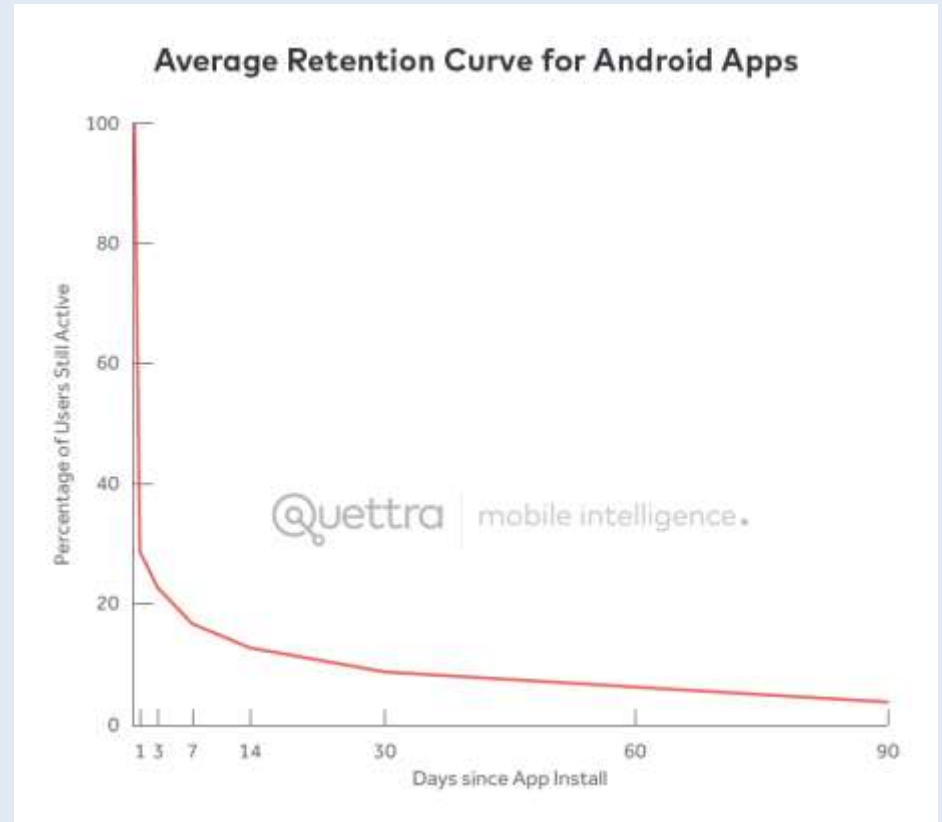
- Groups of 3 students
- Lets run a study
 - Groups of 3 students
 - Each gets the numbers, and you get average numbers for each group

Assessing mobile app utility

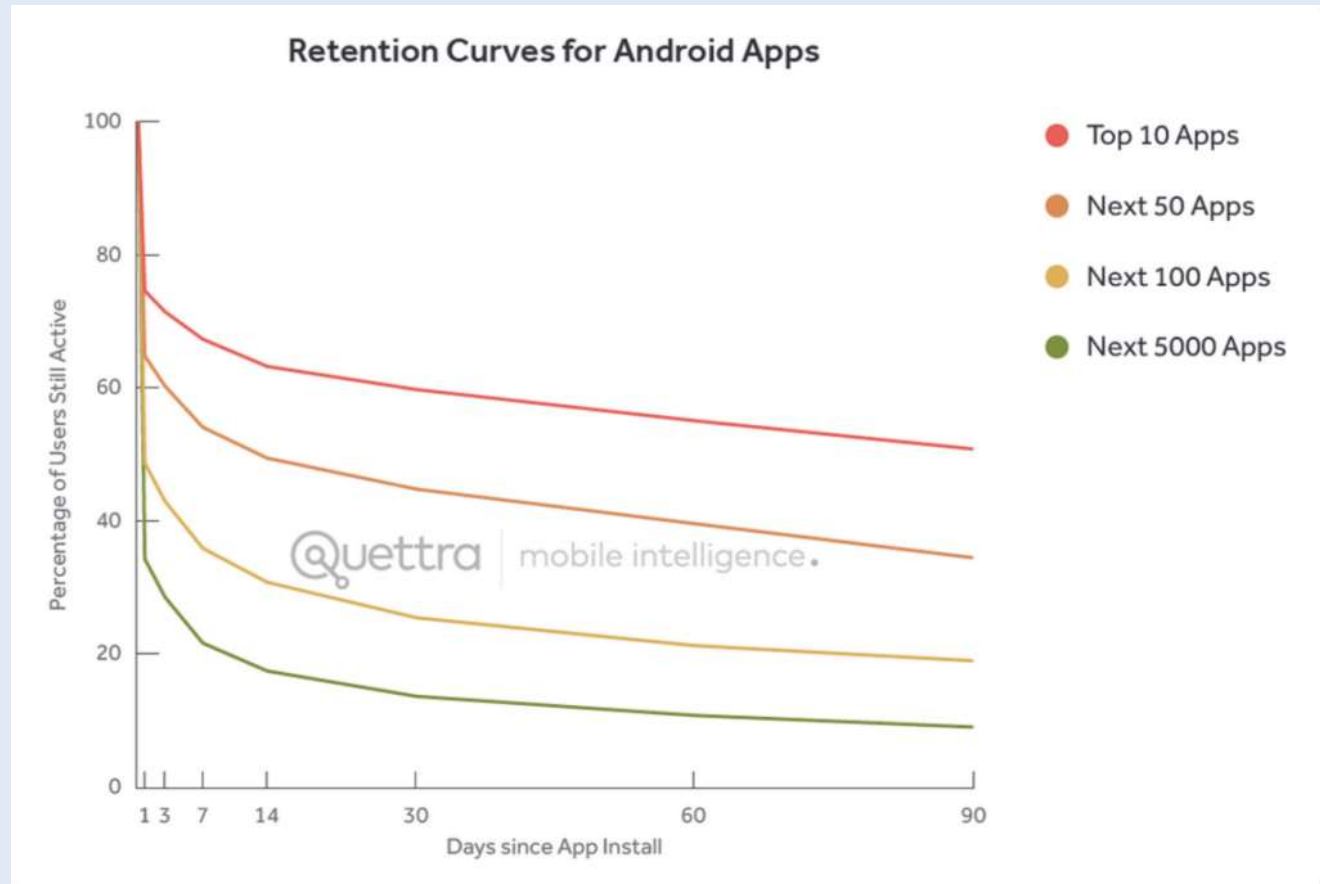
- Get some app counts
 - Total number of apps on your phone
 - # of Apps I absolutely LOVE!!

Why do we need it?

- 77% of users abandon the installed app in 3 days

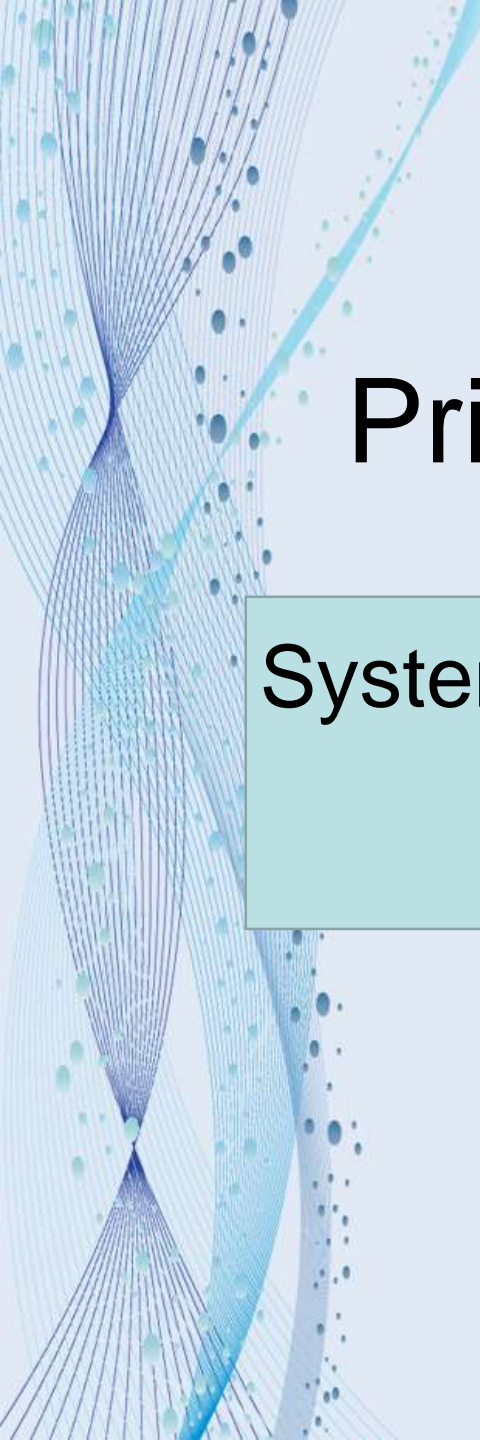


Some apps are better than others



Hard problem

- It is hard to create mobile apps
- It is harder to get users to try your mobile apps
- It is much (much!!) harder to retain your user's attention, interest and motivation to continue to stay with you!



PART 1: 3375

Principles of UX Design

Systematic process of actually designing a successful mobile application



PART 2: 3375



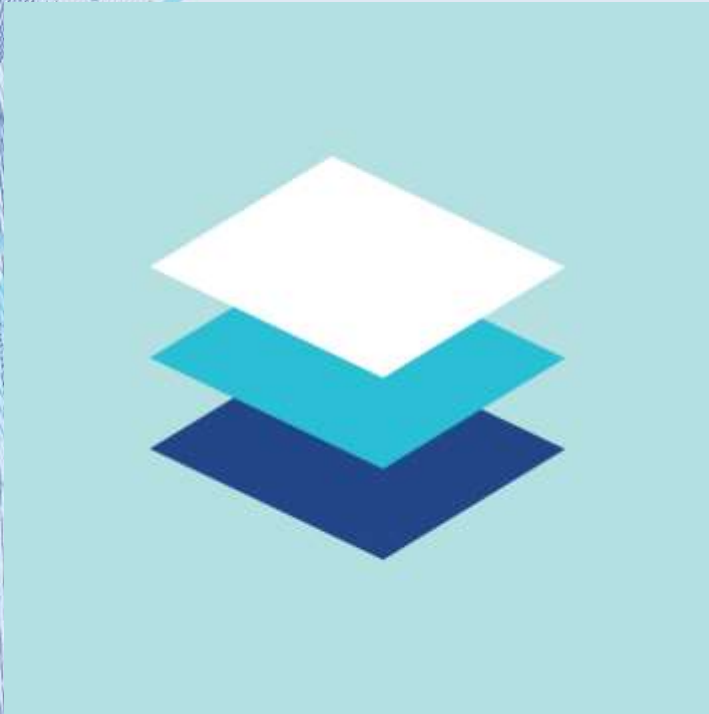
Android UI

Material Design

- Material Design: Visual language (guiding principles) for visual, motion and interaction design for android apps



Material Design



- Inspired by paper and ink (physical world)
- Exists in 3D world:
multiple papers – one above other
 - Occlusion, shadow
- One paper can push the other



Material Design

- Interaction

- Transition from one activity to another
- Process
- Interface
- How do these come together?

- Animation

- Motion signals mental state change
- Fluid: accelerate and decelerate where appropriate
- Should facilitate and enhance user experience

(DO NOT DO) Animation overkill!

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Typography

- Font characteristics
- Consistency across devices
- Clarity across devices
- Simplicity
- Simple DOES NOT mean BORING!

Metrics And Alignment

- Principles
 - Predictable
 - Consistent
 - Responsive
- Alignment: Visually balanced
 - 8dp (bigger components), 4dp (smaller components)
- Metrics: Responsive metrics for dimension
 - Dp: device-independent pixels
 - Sp: Scalable pixels

Material Design 3

- Updated design (UI) guidelines for Android App Development
 - Dynamic Color
 - Design Tokens
 - Cater to diverse devices including folding devices
 - Simplify and scale to larger devices
 - Highly customizable but consistent (internal and external consistency)

Testing Android Studio

- Latest Available Android Studio
- Review of execution flow of android app
- Review of constraint layout