

# Postgraduate Diploma Program in Systems Analysis WARC - Web and Mobile Application Design Course Assignment

**Instructor: Dr Esther Tan; Email: [esthertanmy@nus.edu.sg](mailto:esthertanmy@nus.edu.sg); DID: 6516-2515**

**Institute of Systems Science, National University of Singapore  
25 Heng Mui Keng Terrace, Singapore 119615**

**For more information, please visit our website, i.e. [www.iss.nus.edu.sg](http://www.iss.nus.edu.sg) or contact 6516-2093**

*© 2015 NUS. The contents contained in this document may not be reproduced in any form or by any means, without the written permission of ISS, NUS, other than for the purpose for which it has been supplied.*

# Course assignment

Think through

- Filtering & chunking information using context
- Designing for responsive website
- Mobile UI design consideration

Mobile App Design

## Filtering & Chunking information

Based on Human Computer Interaction  
Hierarchical Task Analysis technique

**Just like in web design**

- Select on stock for viewing
  - identify the share market
  - select the sector
  - select the stock by name or code
  - repeat step 1.1 to 1.3 to select shares for comparison
- View stock by numbers
- View stock by graphs
- Share information with friends
  - select friends' name for sharing
  - select the stock for sharing
    - Identify the share market
    - Select the sector
    - Select the stock by name or code
- Add own comments about these stocks
- Read others comments about these stocks

How to use context to reduce the number of steps and user interaction?  
- For every sub-task, can the information be provided through context sensing

Mobile Information Architecture Design  
1. identify context sensitive information  
2. determine sensing techniques  
3. filter information based on context  
4. chunk information to suit screen size  
5. generate page flow

**Identify context:**  
Can we list the most recently viewed share for his selection?  
Should we keep a profile of his investment?  
**Social context:**  
Can we rank the listing based on what his friends' are viewing?  
**Time context:**  
Should we list those share market current open at the top?  
**Device context:**  
Is he using his smartphone... limit the number of menu options  
Is he using his tablet... provide more selections?

**Identify context:**  
What is his preferred way of viewing the result? Bar chart?  
Line chart? Tables?  
**Social context:**  
Should we show what others are doing, e.g. buying/selling this Shares?  
**Time context:**  
Should we only show the latest share price?  
Or across a period of time?  
**Device context:**  
Is he using his smartphone... show only tables?  
Is he using his tablet... provide a more colour & rich chart? & allow him to make annotation?  
**Location context:**  
Provide a link to send findings to a nearby printer?

ata/sa-dip/WARC/Web&Mobile/v1.1

NUS  
National University of Singapore

ISS  
INSTITUTE OF SYSTEMS SCIENCE

page 48

Mobile App Design

## Chunking information to suit Screen (types of delivery)

Mobile Information Architecture Design  
1. identify context sensitive information  
2. determine sensing techniques  
3. filter information based on context  
4. chunk information to suit screen size  
5. generate page flow

**ViewGraphUI - Desktop**

**ViewGraphUI - MobileSite**

**ViewGraphUI - MobileApp**

Responsive website	Mobile Web	Native App
Build for all platform, will adapt depending device	Build for mobile devices and run from browser	Run standalone on mobile device, not from browser
Mostly to provide information to users, not to execute a task	Mainly to support tasks and especially for constant communication with the server	Mostly support tasks for fast response & to use device unique features, e.g. camera.
When there is a need to be easy accessible, shareable and be found	When there is a need to be easy accessible, shareable and be found.	When there is a need to access personal data
Mostly supported by content management system	Information hosted on server	"Hard-coded" content to platform
Need Internet connection	Need Internet connection	No need constant internet connection
User interface similar to Web Except with lesser content (especially multimedia), links and larger buttons.	User interface similar to Web Except with lesser content (especially multimedia), links and larger buttons.	Unique to devices

See reference section for more

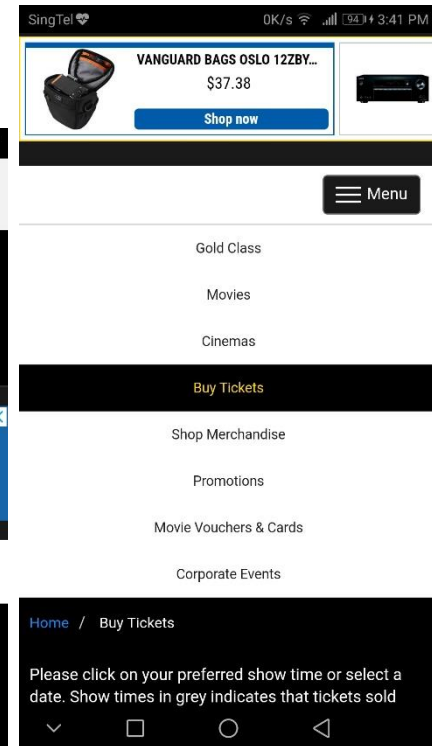
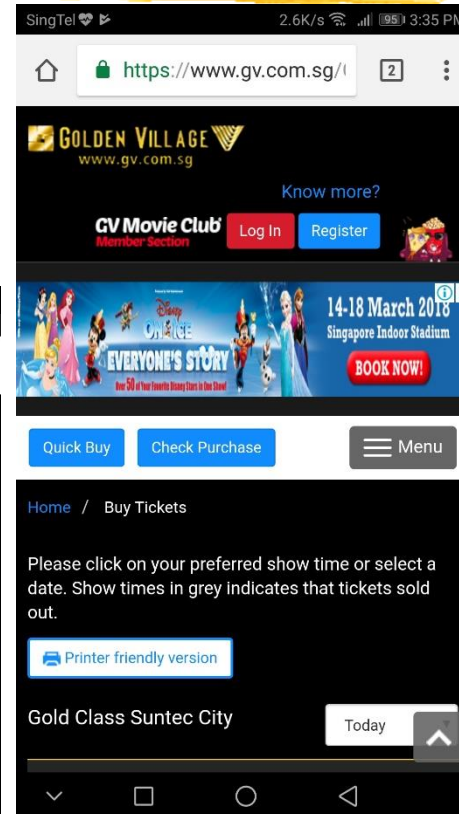
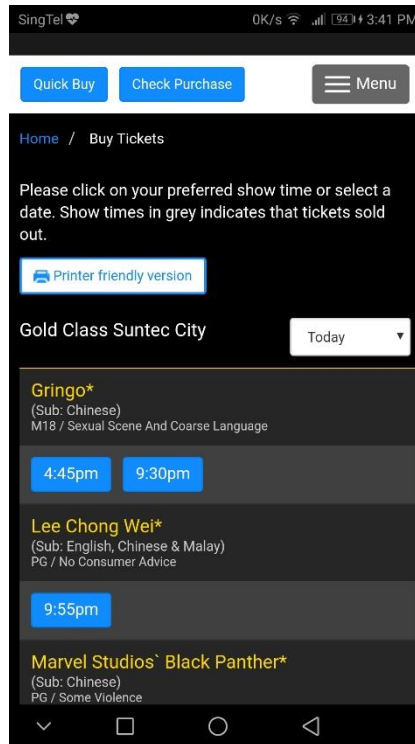
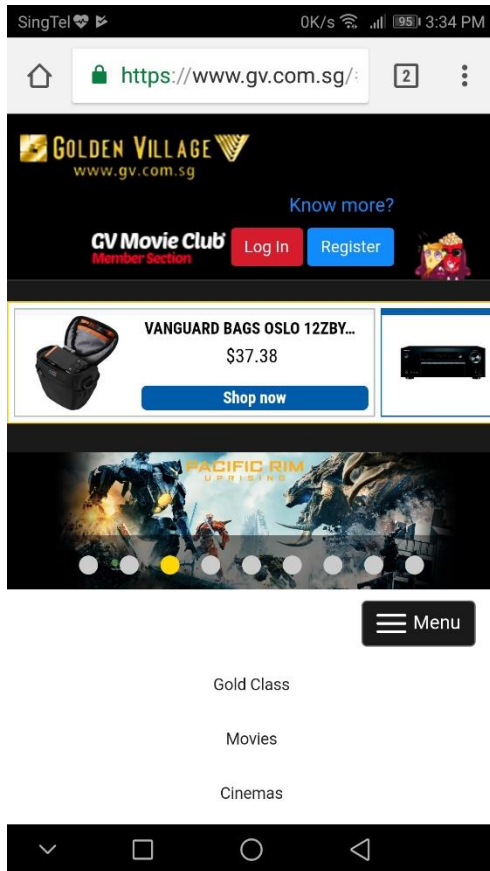
ata/sa-dip/WARC/Web&Mobile/v1.1

NUS  
National University of Singapore

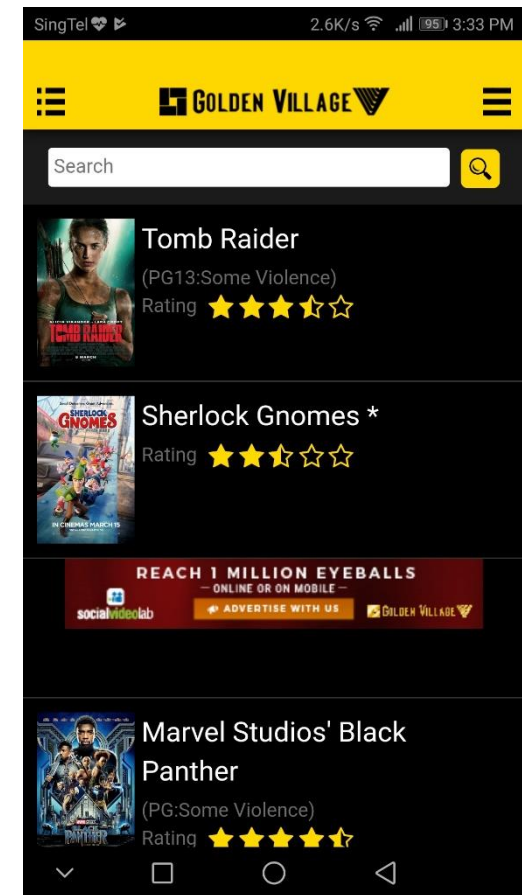
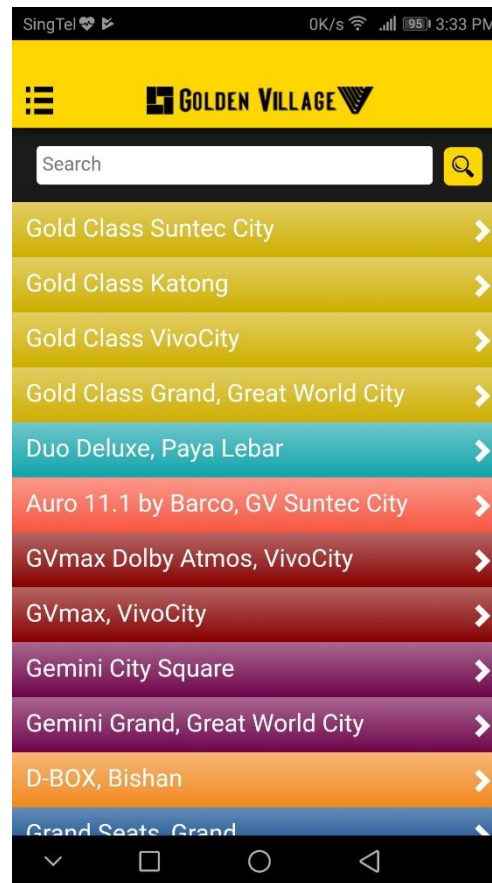
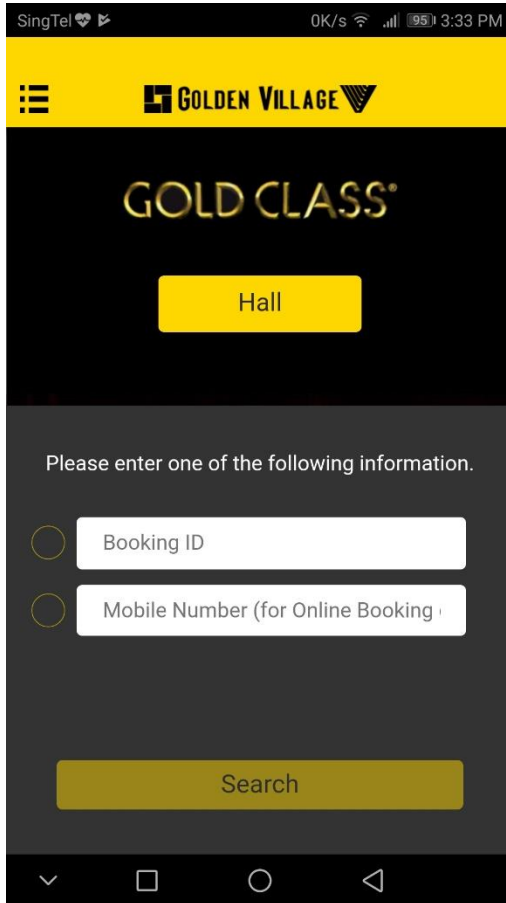
ISS  
INSTITUTE OF SYSTEMS SCIENCE

page 53

# Course assignment: Redesign GV – Mobile Web Application



# Course assignment: Redesign GV – Mobile Native Application



# Course assignment: Deliverables



Present your deliverables in PPT

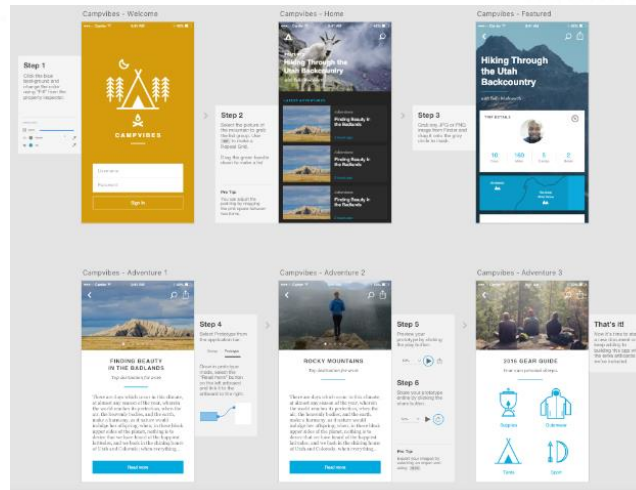
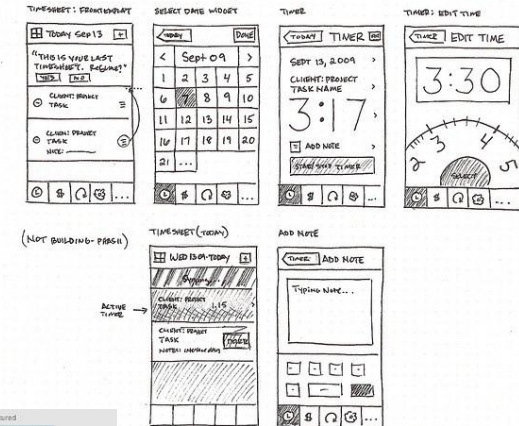
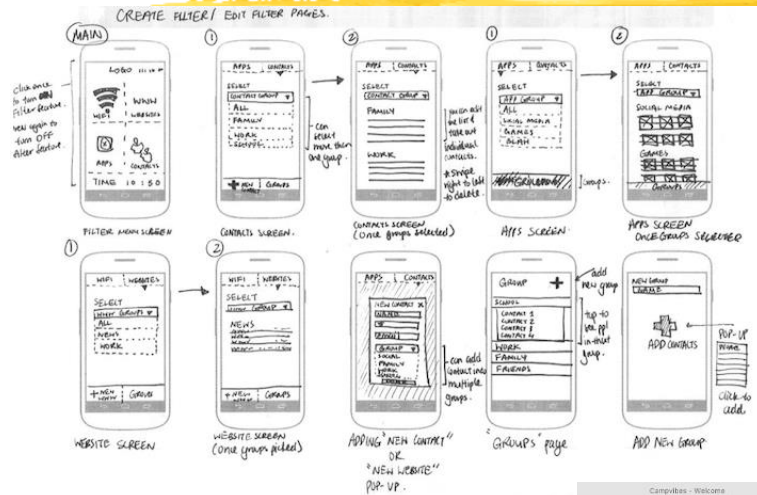
- A set of screens/storyboards (between 5 to 6 screens) for either **Mobile Native App or Mobile Web App** with annotation of how the information will be filtered based on the context sensitive attributes (Time, Identity, Location, Environment, Social, Device and Network)
- You are to demonstrate good Mobile user interface design technique and consideration
- you need not show the Hierarchical Task Analysis or Activity diagram
- You may use simple tools such as Microsoft Powerpoint or any prototyping tools for the screen design.

If your team chose to design for Mobile Native App, you are to include a setting screen for allow user to decide on the configuration of their usage e.g. sync information only on Wifi, share xxxxx, etc

If your team chose to design for Mobile Web App, you need to include a screen design To illustrate on how your Responsive Web page would look like on a laptop full screen view.

The course assignment marks will be counted towards the Mobile application development paper.

# Course assignment: Examples of good design deliverables.



<https://www.uxpin.com/studio/blog/practical-look-using-wireframes/>

<https://www.pinterest.com/pin/223139356507315515/>

<https://medium.com/@LearnXD/5-reasons-ux-designers-will-love-adobe-xd-6bd82308f5e9>