



Australian
National
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INTERACTIVE MOBILE INTERFACE FOR VIDEO BROWSING

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BACKGROUND

WHAT IS A VIDEO? WHY YOUTUBE?



**Frames seen when
hovering through the
youtube video timeline**

BACKGROUND

HOW DOES A USER CONVENTIONALLY SEARCH A VIDEO?

Through metadata



[Video Title]
[Video Tags]
[Video description]
[Producer]
[Upload Date]
...

DRAWBACKS...

INEFFICIENCIES/ DRAWBACKS

CASE 1 (INCORRECT METADATA):

SEARCH TERM: 'Xbox 360'



Lady Gaga Plays Tekken TRANSLATE

con trailer video TTT2 tekken harada game fighting gameplay new **xbox 360 xbox360** microsoft x360 playstation ps3 sony scea gamespot ign king of ...

1:18 NEW HD by crosscountertv | 1 day ago | 33,076 views

INEFFICIENCIES/ DRAWBACKS

CASE 2 (INCOMPLETE METADATA):

Only lists 'Golden Voice' video in description

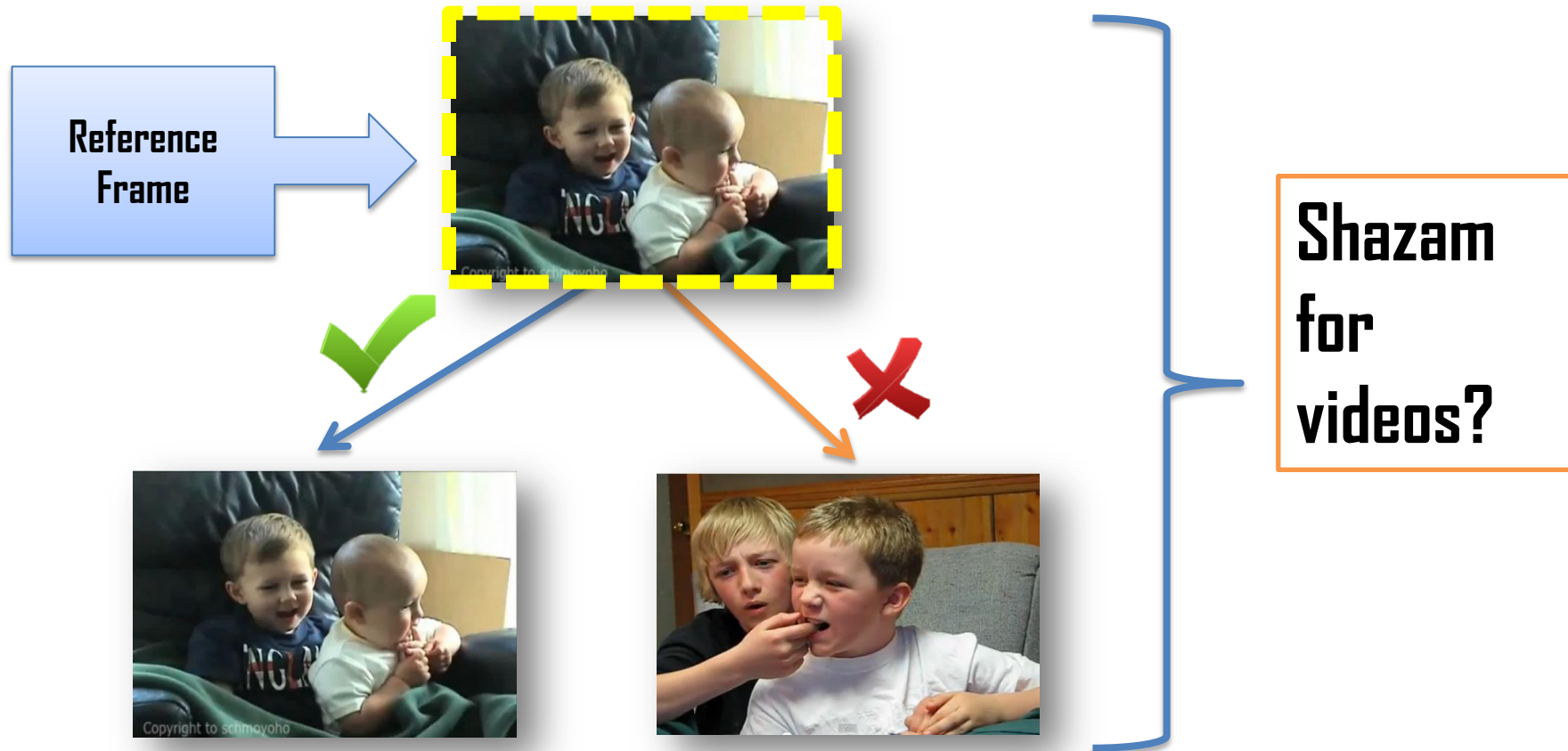


PROPOSED SOLUTION

WHAT IF YOU COULD SEARCH VIDEOS
INDEPENDENT OF ITS METADATA?

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GOAL AND SCOPE

GOAL:

PROVIDE A NEW PLATFORM TO UTILISE
AVAILABLE VISUAL MEME-TRACKING TOOLS

SCOPE:

DEVELOP AN ANDROID APPLICATION AND
CREATE THE BACKEND (SERVER) SYSTEM FOR
UTILISING AVAILABLE MEME-TRACKING TOOLS
ON CANTABILE SERVER

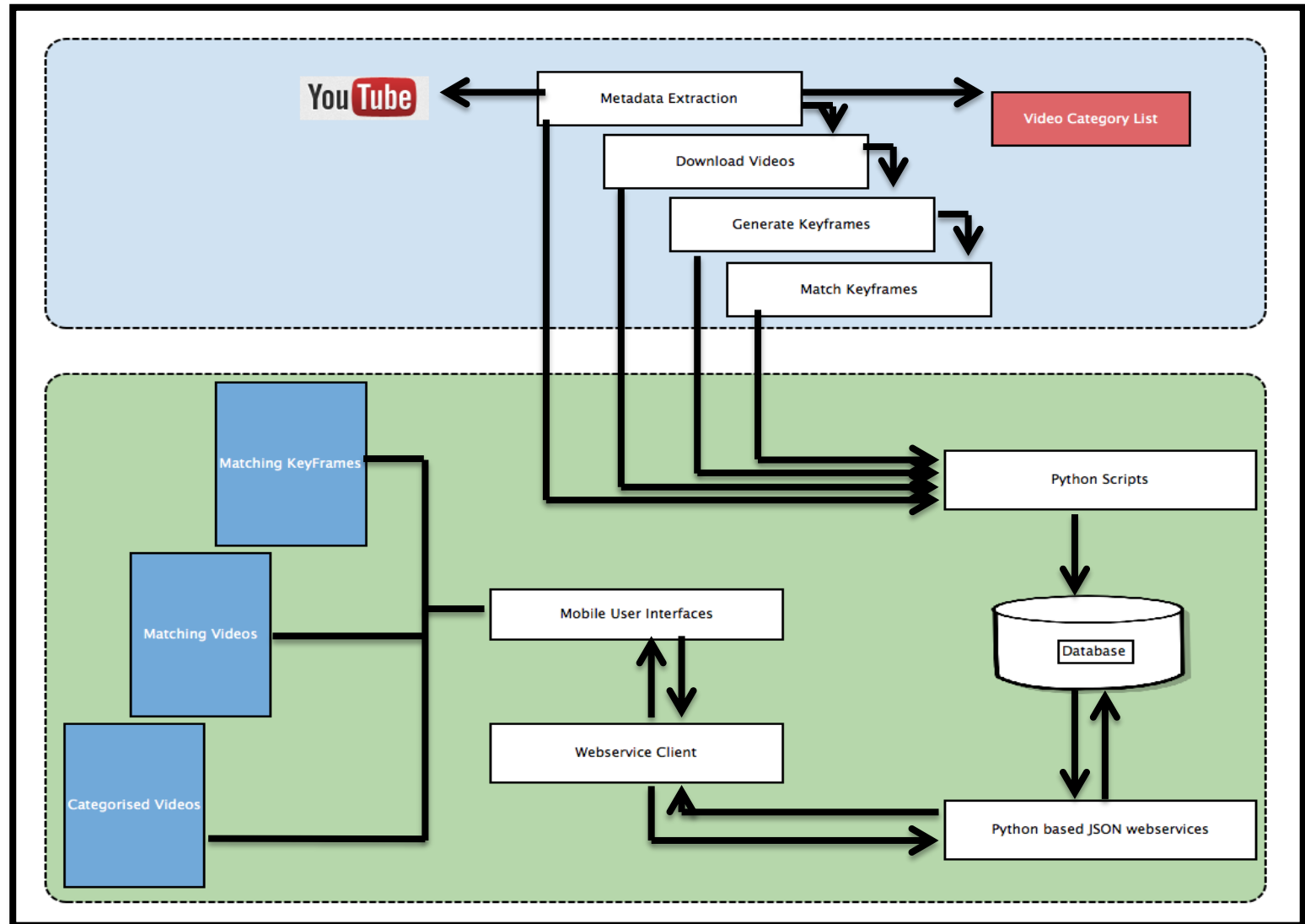
WHY SMARTPHONE APP...

INFORMATION ON DEMAND

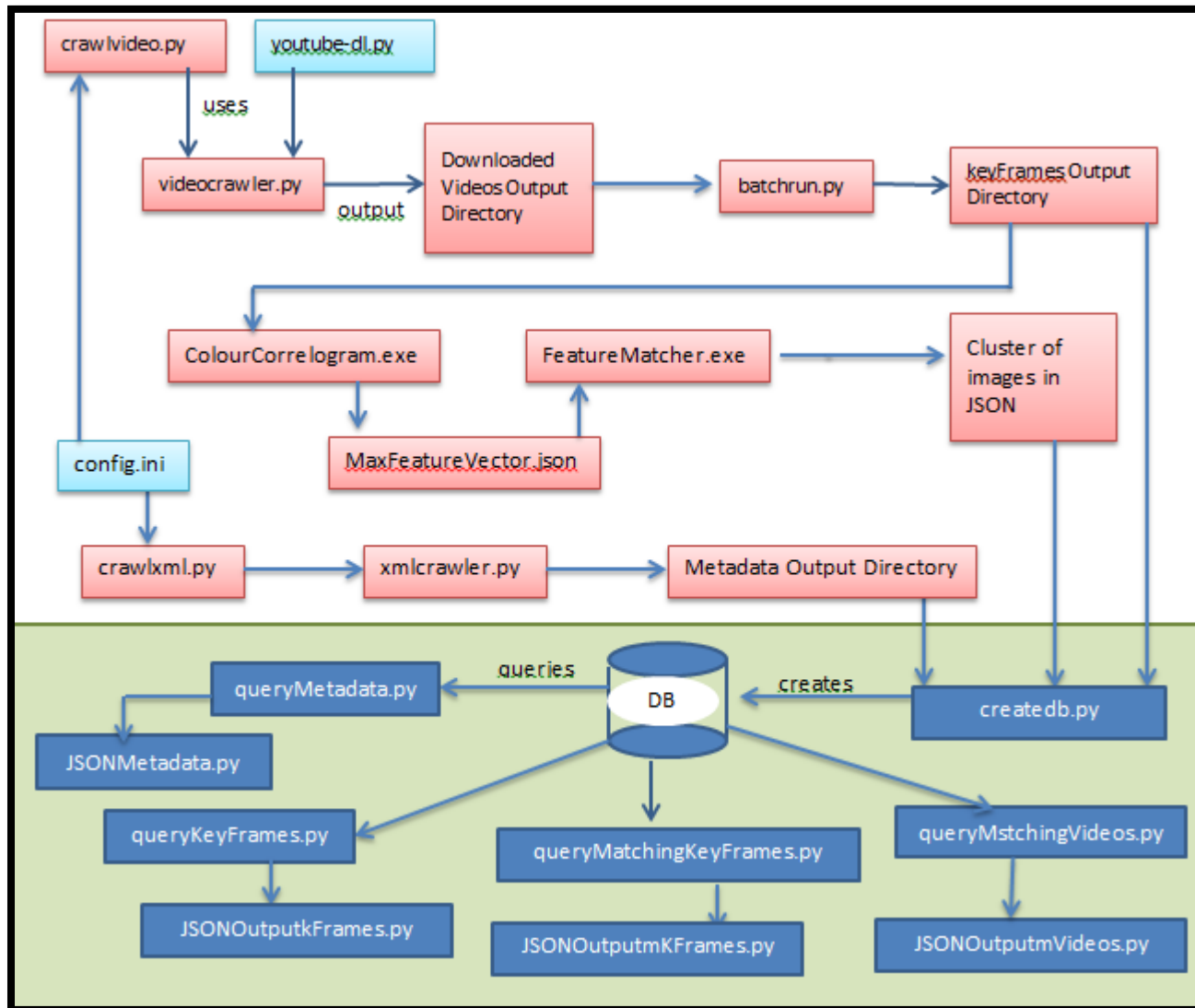
COLLECTION OF STATISTICS/FEEDBACK FROM
USERS AND THEIR DEVICES

INCREASE USAGE

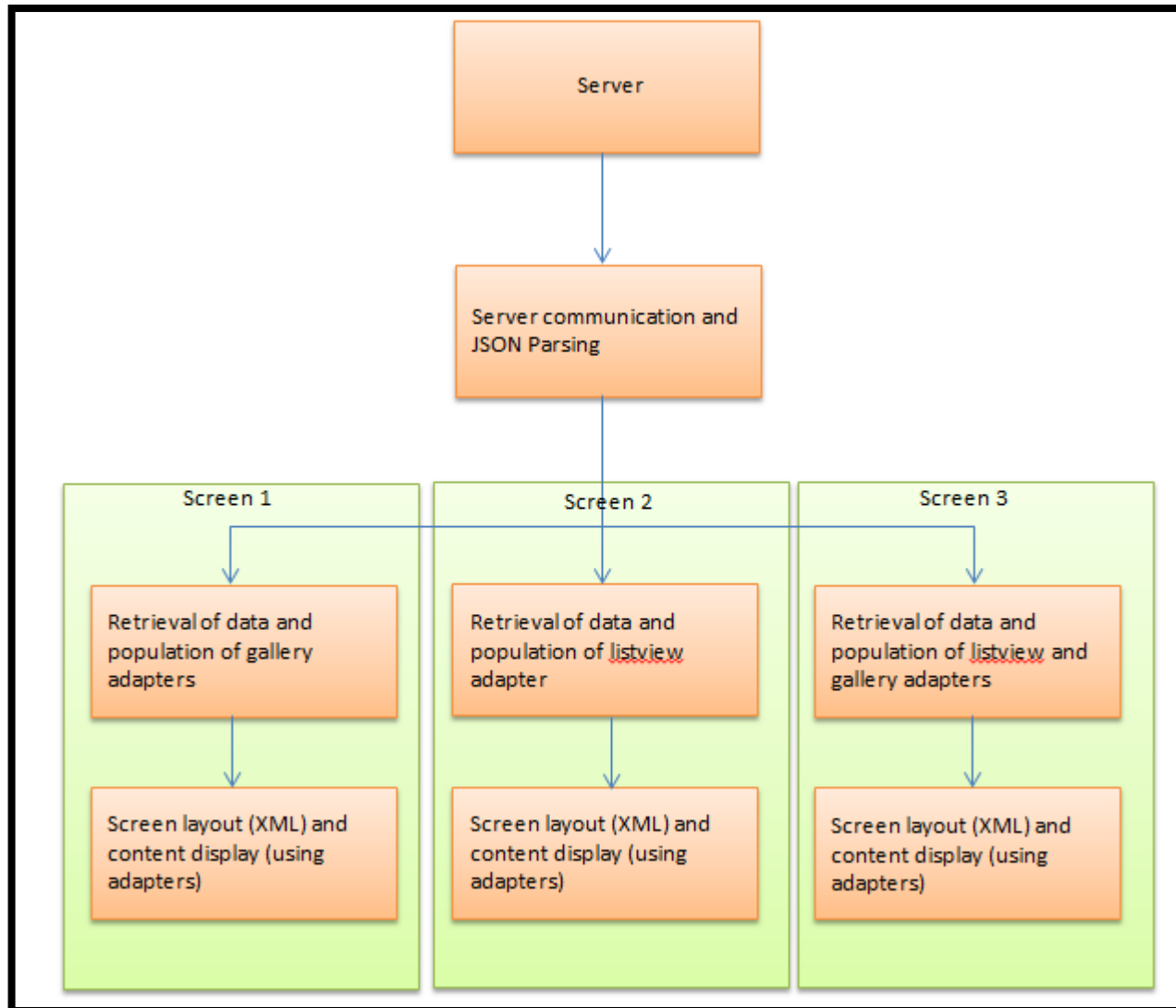
SYSTEM OVERVIEW (High level design)



LOW LEVEL DESIGN (Server)



LOW LEVEL DESIGN (Android)



APP REQUIREMENTS

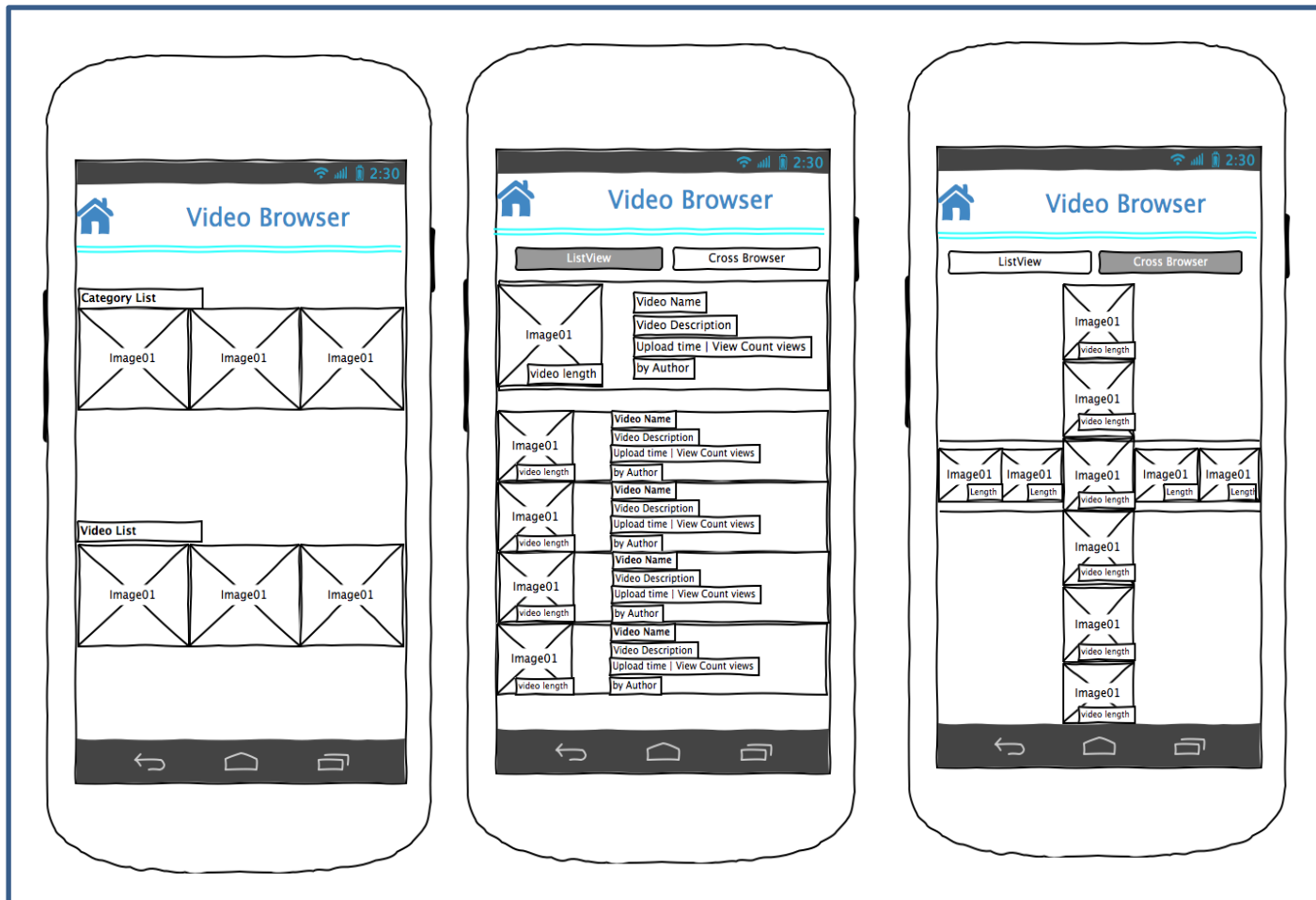
USER INTERFACE

- Colour Scheme
- Positioning of Buttons
- Cater for different screen sizes, firmware releases etc.
- Unified app design that can be easily recreated for iPhones, tablets etc.
- Efficient screen usage (minimisation of screens etc.)

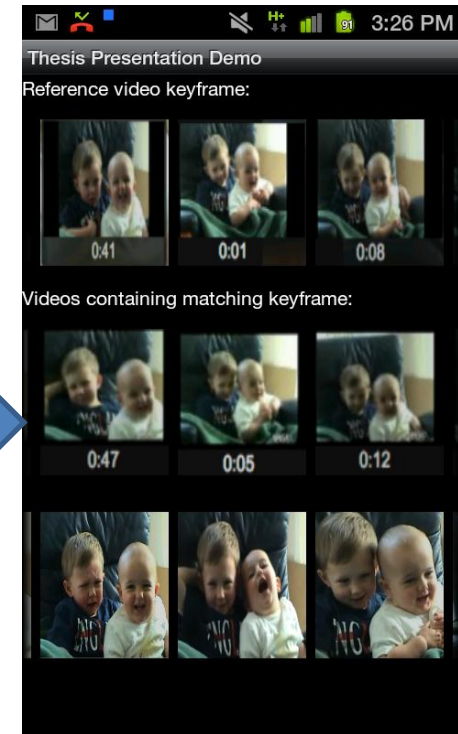
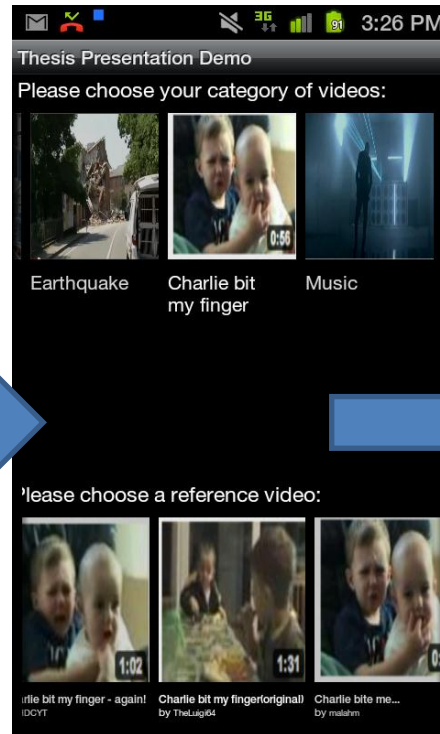
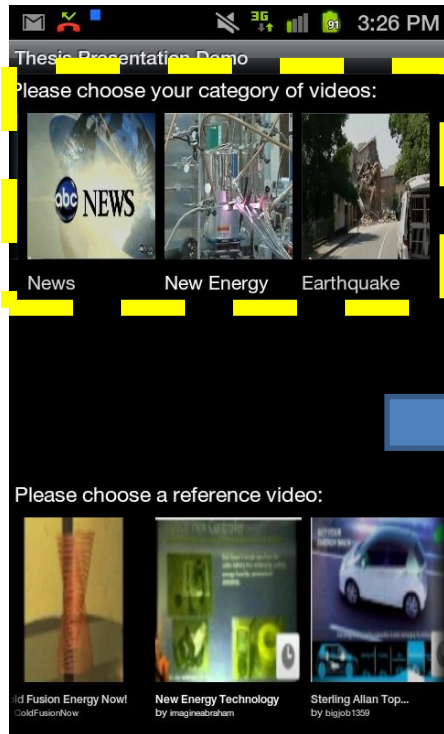
RESPONSIVENESS AND ROBUSTNESS OF THE APP

- Minimise, if not eliminate, unexpected crashing of the app
- Locally store (cache) data for enhanced browsing experience

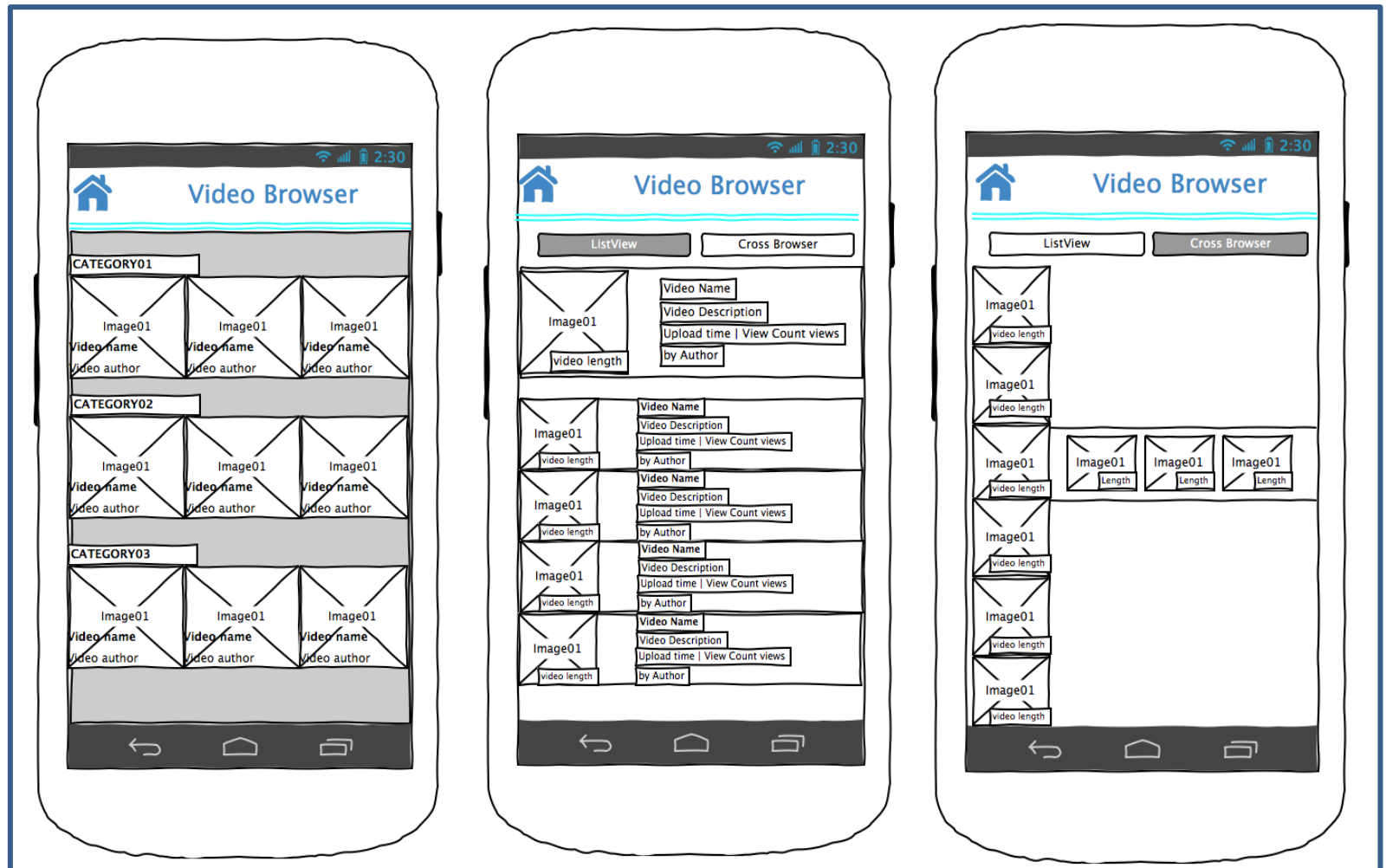
SCREEN MOCKUPS (Iteration 1)



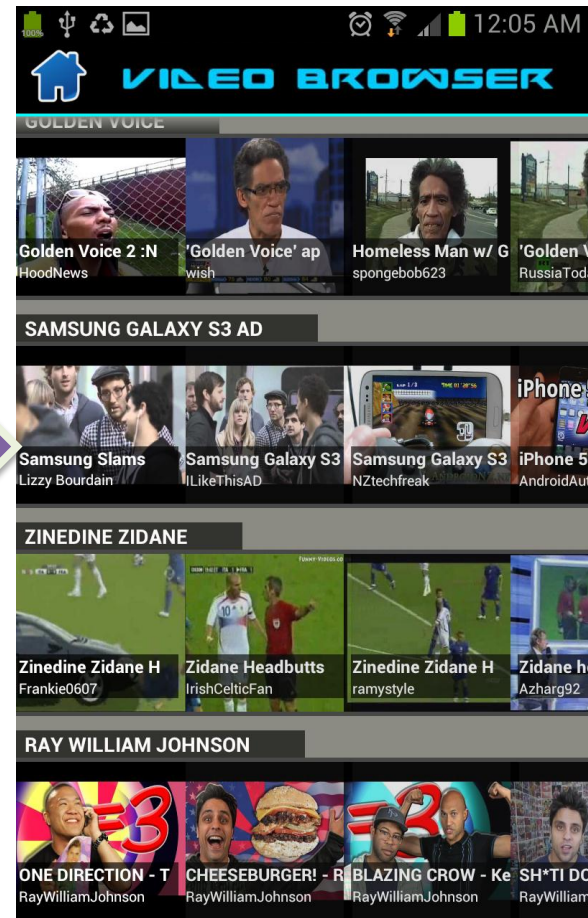
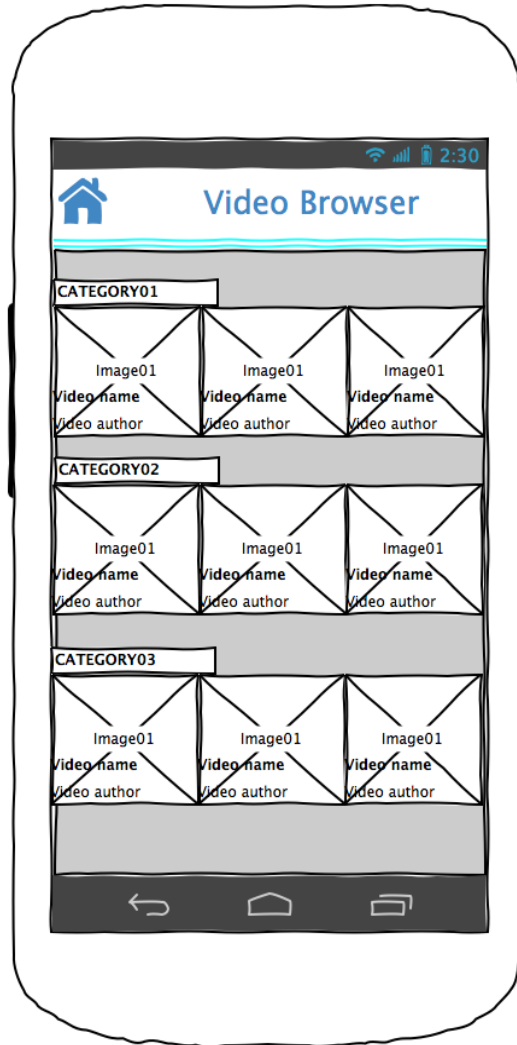
SCREENSHOTS (Version 1)



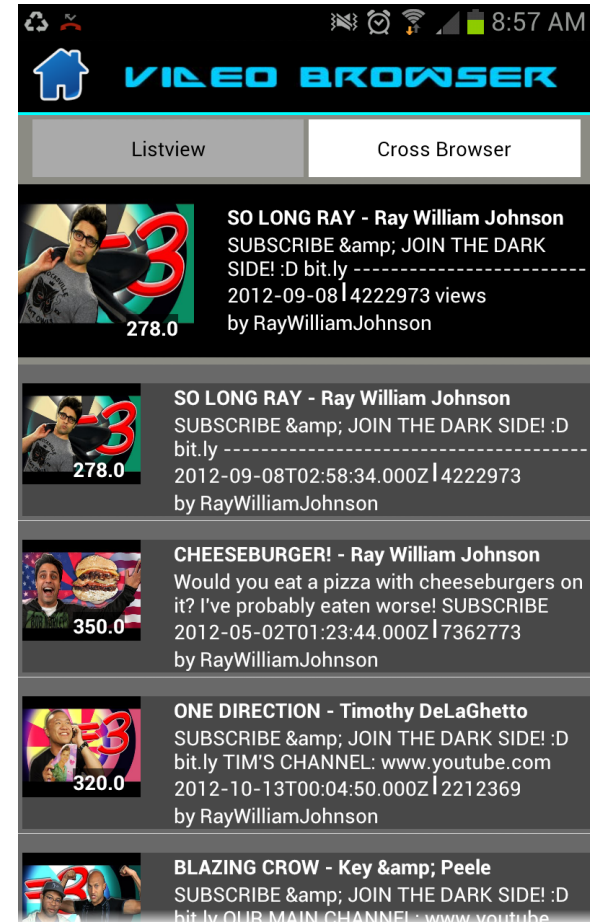
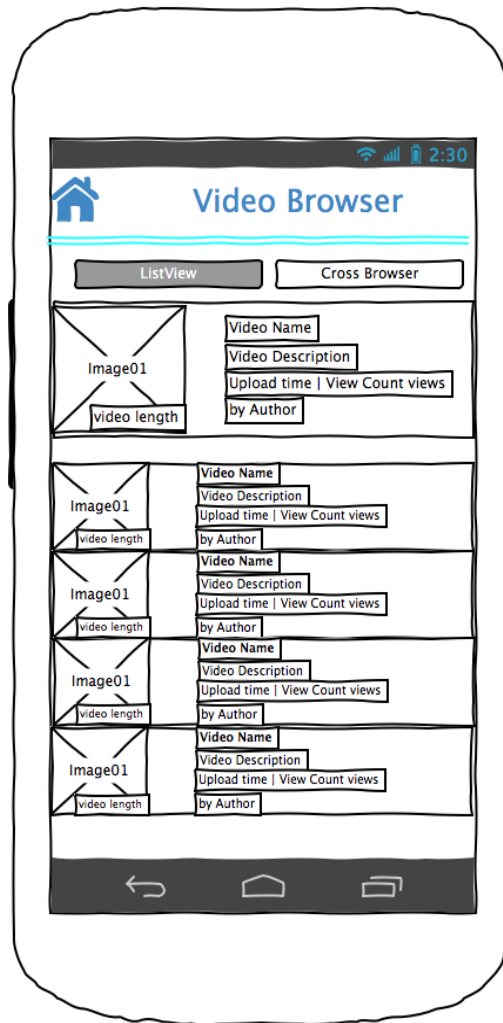
SCREEN MOCKUPS (Iteration 2)



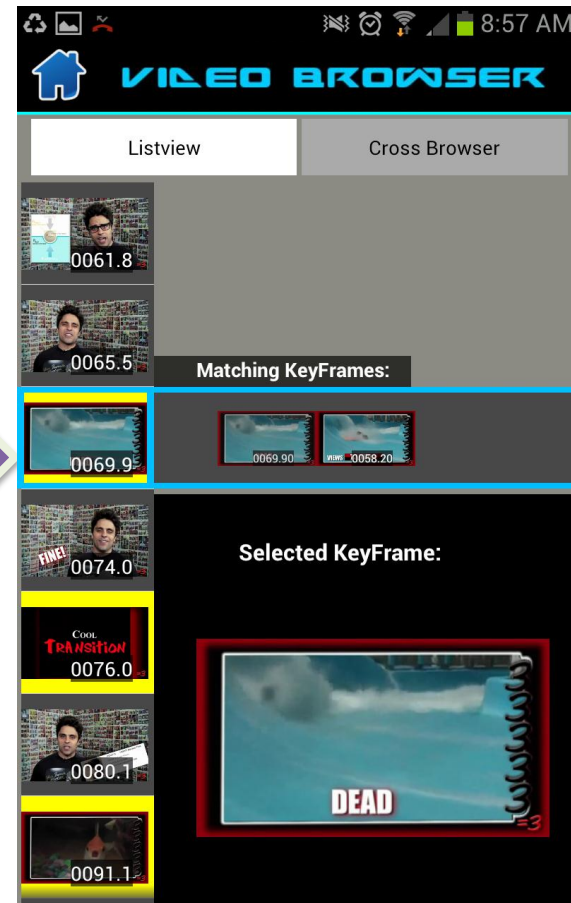
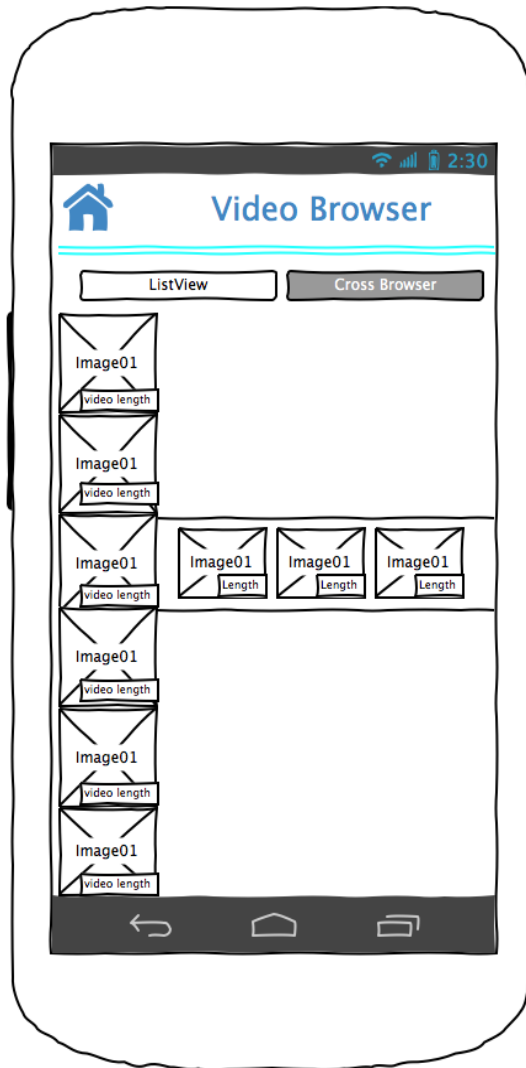
SCREEN BREAKDOWN (Screen 1)



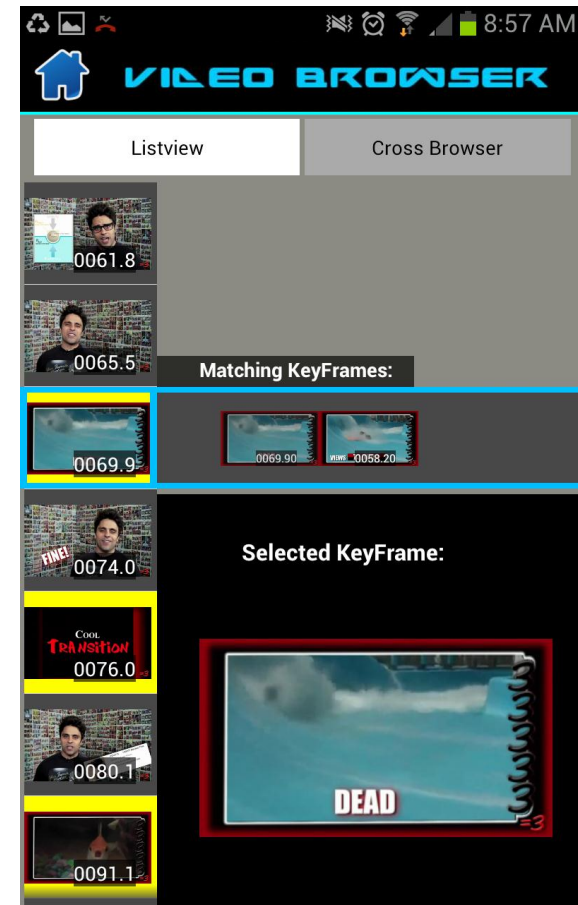
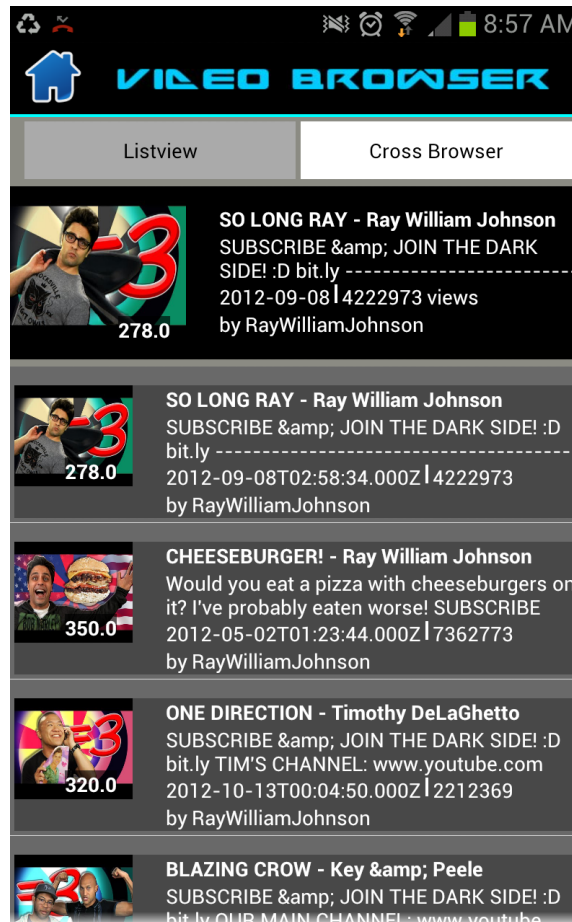
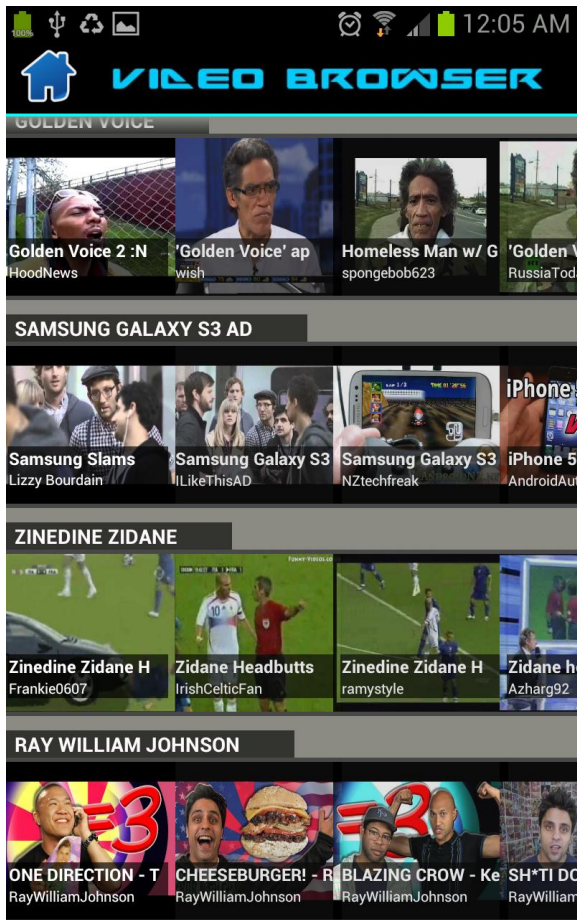
SCREEN BREAKDOWN (Screen 2)



SCREEN BREAKDOWN (Screen 3)



SCREENSHOTS (Version 2)



CODE STANDARDS + TESTING

ANDROID

- Standard java coding conventions + JavaDocs Style comments etc.
- Standard Testing of classes

SERVER

- Output verified using JSON Validator

USER ACCEPTANCE TESTING

FUTURE WORK

FEATURE ADDITIONS

- Ability to allow users to provide their own categories
- Allow users to provide their own video clips for searching

SCALABILITY

- Increase server's capacity in handling large amounts of queries
- Long-term solution for downloading videos

OTHER PLATFORM DEVELOPMENTS

- iOS platform and Tablet development

CONCLUSION

THANKS!

Any Questions/ Feedback? 😊

REFERENCES

Youtube video links:

<http://www.youtube.com/watch?v=bY0GAsQXskY>

http://www.youtube.com/results?search_query=xbox360

<http://www.youtube.com/watch?v=LkOnslhIcu8>

Literature Review Paper:

<http://users.cecs.anu.edu.au/~xlx/proj/visualmemes.html>