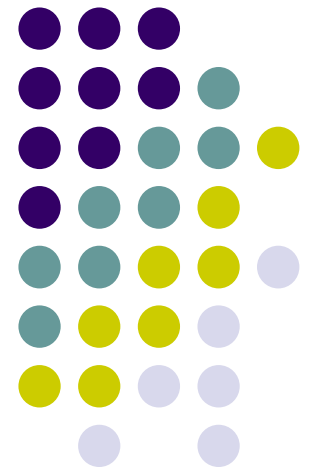


Ubiquitous and Mobile Computing

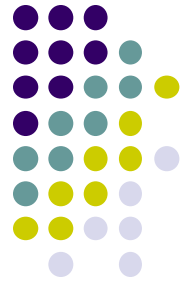
CS 528: Family Guard: Kids Tracking and Protection Solution

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Family Guard



- In this paper I'm presenting an android mobile app to serve as a **Family Guard** and provide parents with safety info about their kid's daily **locations** and **activities**, includes but not all; current location on the map, current fit activity from google fit APIs, daily locations/activities timeline, alerts when kid location is lost and other useful info.
- One research firm estimates that more than **70 million** people across North America and Europe will be using tracking programs to track family members by 2016[1]

Possible Scenarios



- Your son supposed to be in the park plying with friends and you want to check if he's still there or not
- Your daughter supposed to be at her friend's home but her location is changing around there, you might need to know if she's walking around with her friend or in vehicle with someone else
- Someone told you he saw your son yesterday around 3 pm in the mall but he supposed to be going back home from his school, you might need to double check where was he at that time yesterday
- Your daughter location is lost while she supposed to be studying with her friend, you could call her friend to check if she ran out of battery and make sure she was NOT kidnapped and the kidnapper turned her phone off

Vision & Prototype / Surevy



- Survey Results – features ordering

#	Answer							Total Responses
1	Your kid(s) current location on the map	30	12	6	3	3	1	55
2	Your kid(s) current fit activity	8	22	13	5	6	1	55
3	Your kid(s) daily locations timeline	4	11	19	15	5	1	55
4	Your kid(s) daily fit activities	1	2	8	19	14	11	55
5	Alert when your kid location is lost	9	4	6	9	24	3	55
6	Short video and photo shots from both back and front cameras in case of emergency reported by your kid(s)	3	4	3	4	3	38	55
	Total	55	55	55	55	55	55	-

- This Survey helped me to choose my prototype features and leave the rest as a vision and future work

Related Work

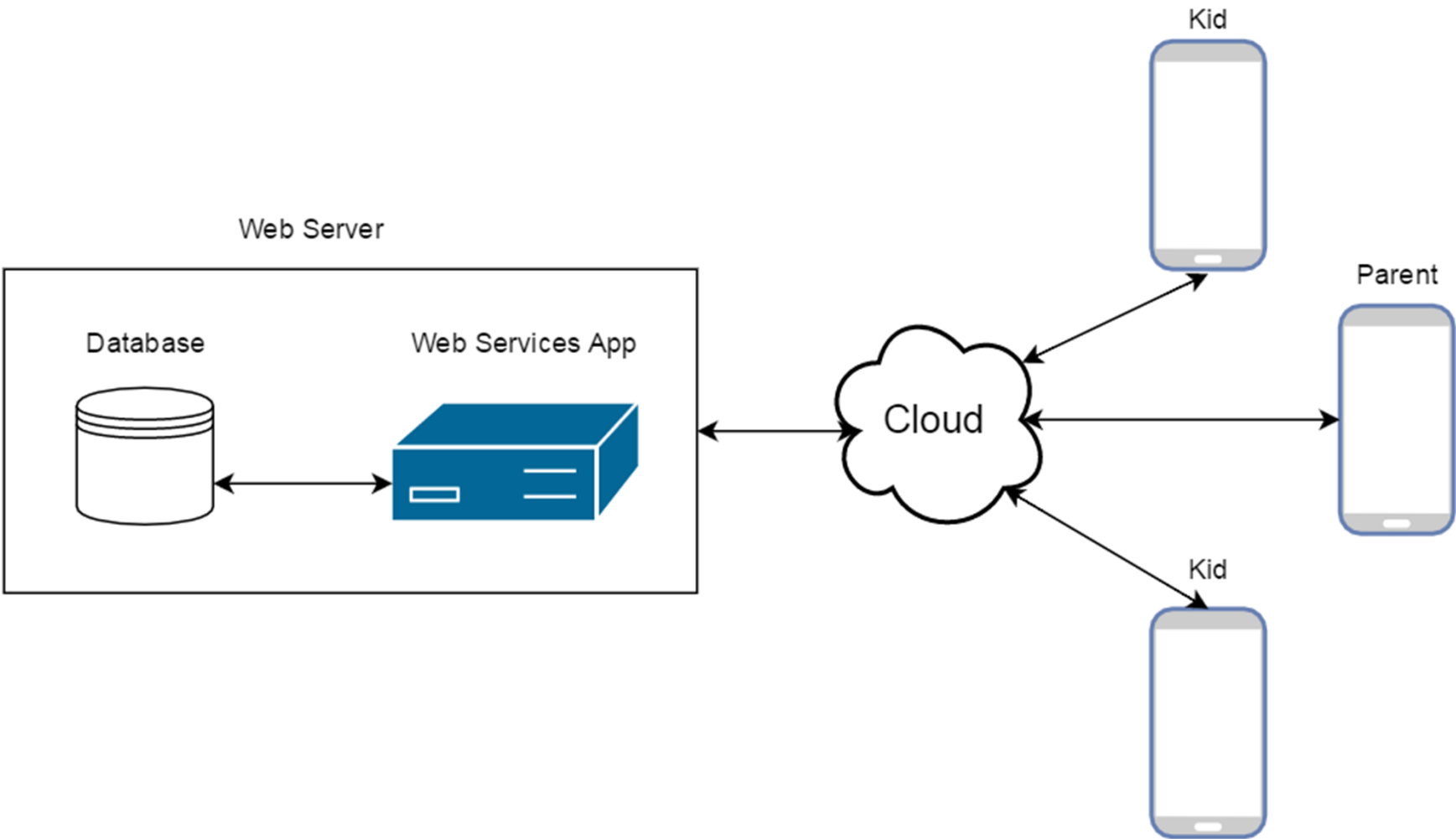


- Related work study helped me to extract features and scenarios.
- To be added – related work table

Feature	Life360	Family Locater	Kid Control	Family Guard
Current Location	✓	✓	✓	✓
Locations History/Timeline	✓	✓ paid	✓	✓
Current Fit Activity	✗	✗	✗	✓
Fit Activity History/Timeline	✗	✗	✗	✓
Location lost / battery low alerts	✓	✗	✓	✓
Separate Parents/Kids Accounts – Parents privacy	✗	✓ both	✓	✓
Same email family account	✗	✗	✓	✓

Methodology

- Project architecture



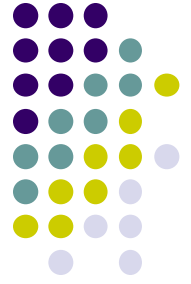
Implementation



- Login Screen
- Settings Screen
- Kids view (future work)
- Parents home
- Time line screen

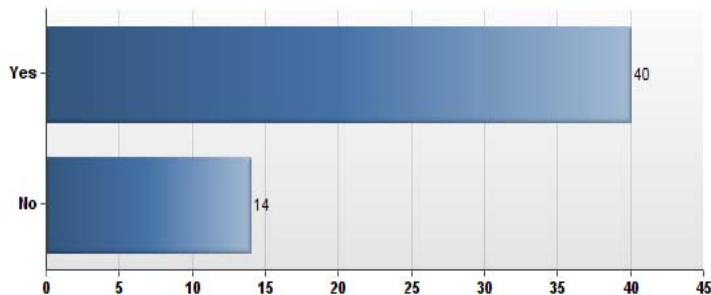


Evaluation

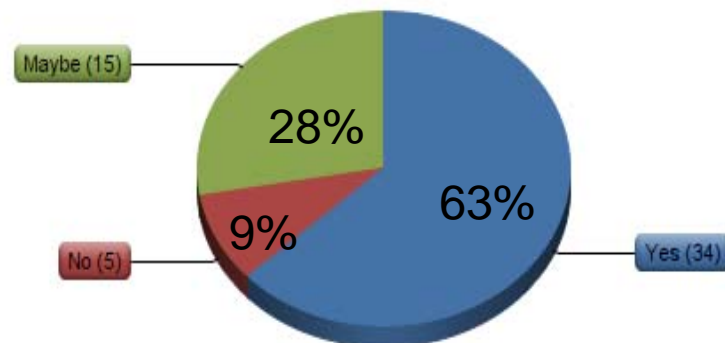


- As part of the survey I tried to evaluate my work by asking three more questions; Country? Is he/she a Parent? Could they use such a tracking app?
- I got responses from different parts of the world; USA (16), Jordan (24), UAE (4), Syria (3), Saudi (2), China (2), Egypt (2), India (1)

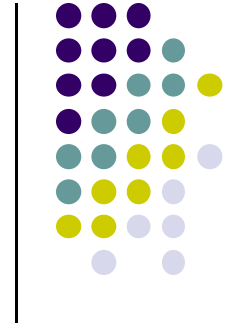
Are you a parent?



Would you install and use kids tracking mobile app?



References



- [1] Luckerson, Victor. 2012. Should You Use Your Smart Phone to Track Your Kids? <http://business.time.com/2012/09/14/should-you-use-your-smartphone-to-track-your-kids/>



**Thanks
Questions?**