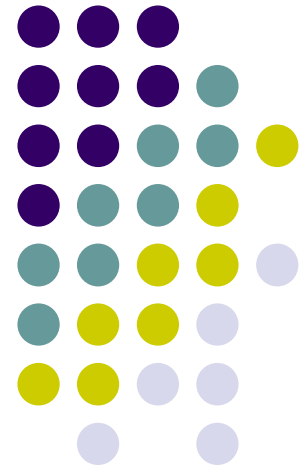


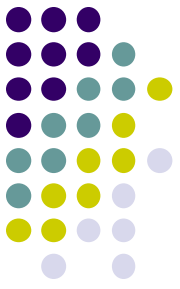
lostNfound

CS 528 Mobile and Ubiquitous Computing

Marie Solman, Jishen Xu, Dingda Zhou
Saad Islam, Muzammil Bashir

*Computer Science Dept.
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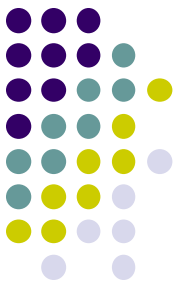


Motivation

Lost items cost
Americans \$5,591
over a lifetime!

Source: <http://www.nydailynews.com/news/national/lost-items-cost-americans-5-591-survey-article-1.2237244>

Motivation



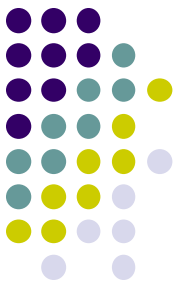
pixie
Lost & Found Survey

Search the Nation

Americans spend 2.5 DAYS A YEAR looking for lost items

\$2.7+ BILLION A YEAR is spent replacing misplaced possessions

The infographic features a background image of a woman's face. On the left, there is a sign that says "FOUND IT! This tells you the location of your M&M's" with an arrow pointing to a calendar icon. Below the calendar icon, the text reads "KEEP GOING" and "Americans spend 2.5 DAYS A YEAR looking for lost items". In the center, there is a yellow map of the United States with the text "Search the Nation" inside it. On the right, there is a yellow dollar sign icon with the text "\$2.7+ BILLION A YEAR is spent replacing misplaced possessions".

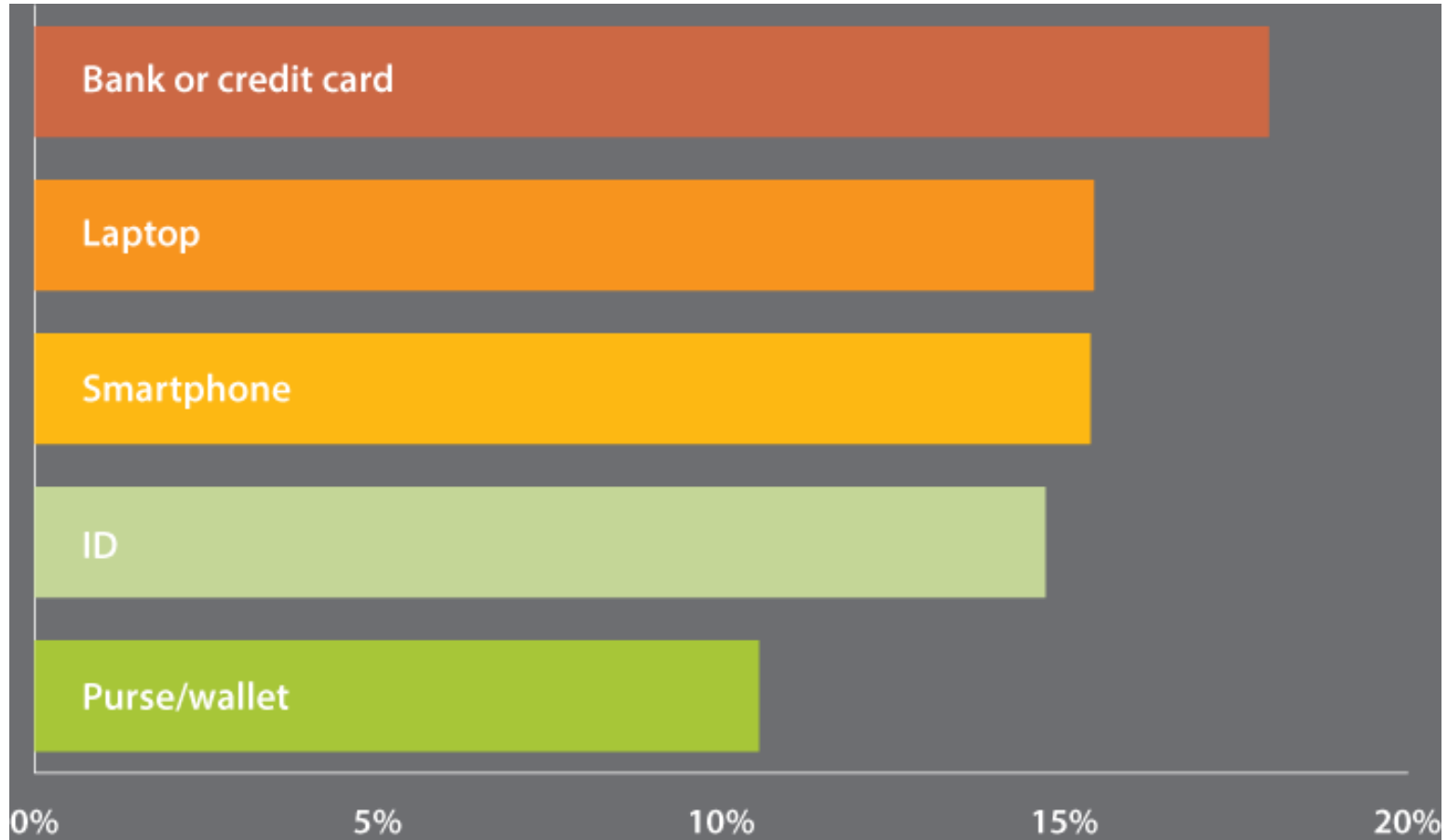
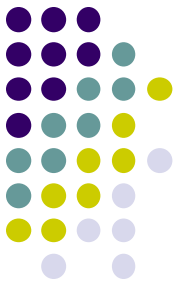


Motivation - continued

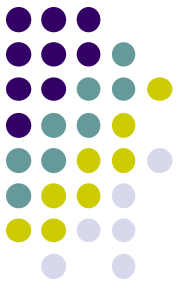
- Can be costly!
- Time lost searching
- May not be replaceable
- Data is hard to replace
- Emotional value of items or contents



Sadness caused by lost items

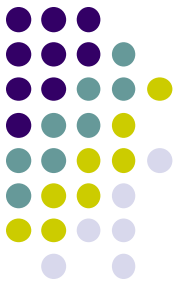


Motivation - Communication Gap



- Extra resources required
- Space considerations
- Privacy concerns



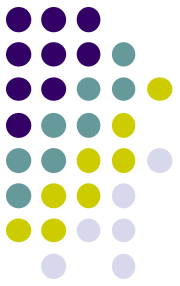


Related Work

- **Pixie** - phone app to keep items found
- **Mozy** - backup devices so data is never lost
- **Lost or Found**
- **Have it Back**

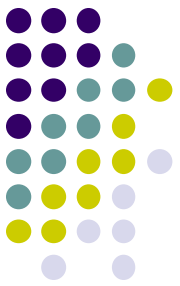


Methodology - Goals



- Automatic tagging of item descriptions
- Automatic marking of item location
- Improve communication
- Quick and easy to use!

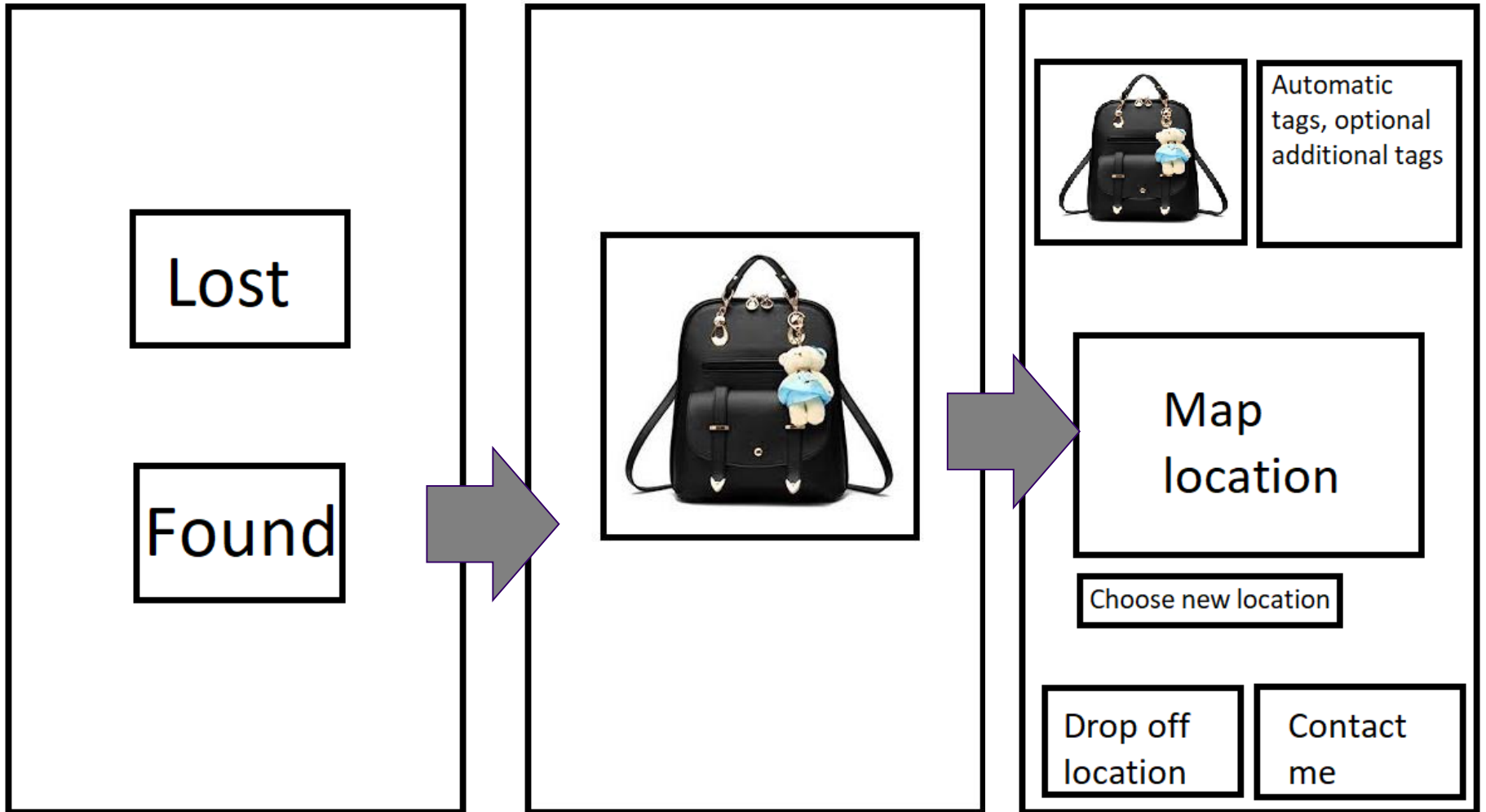
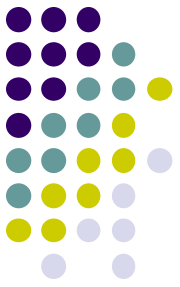




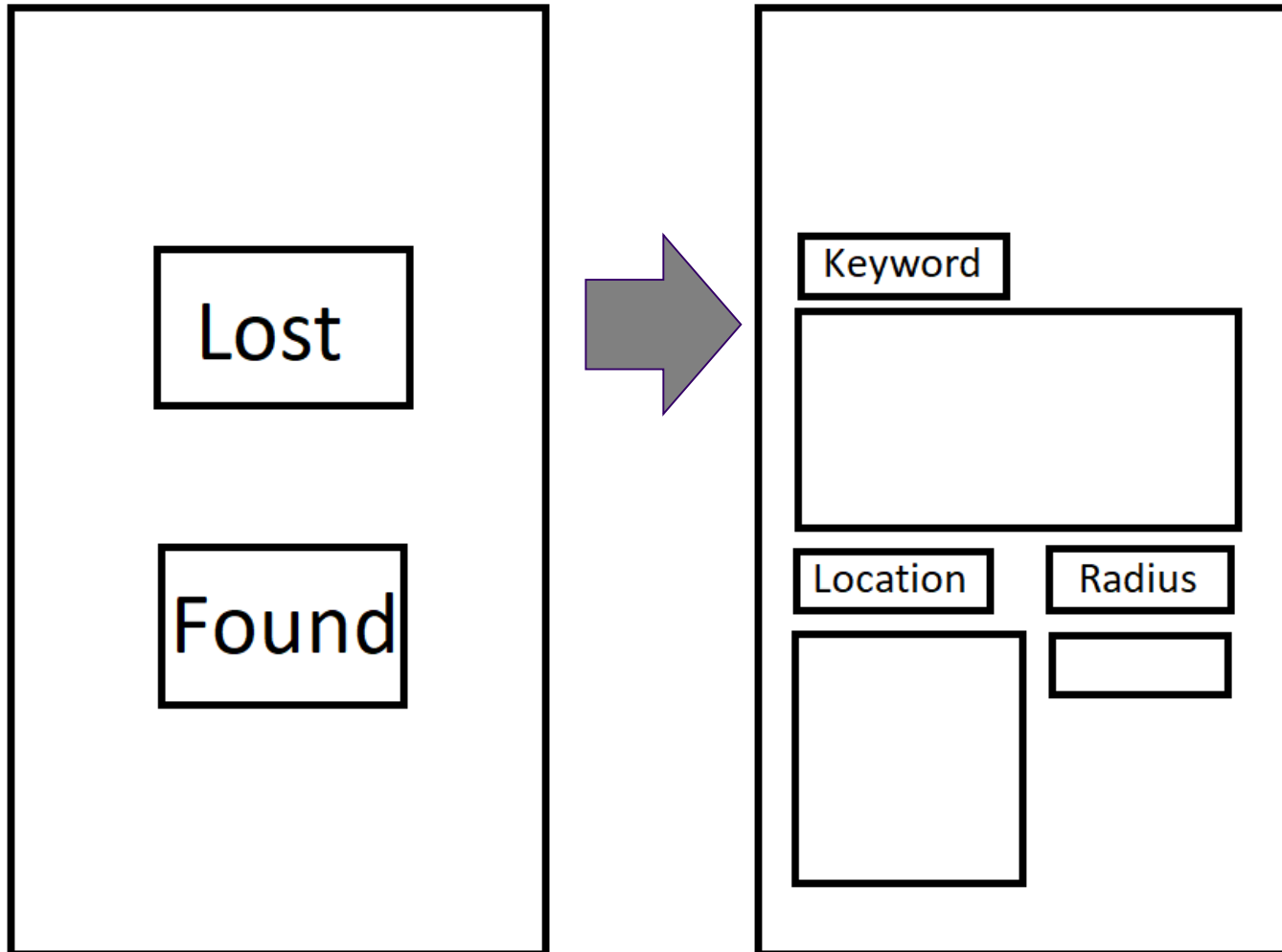
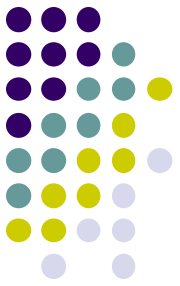
Methodology - Modules Used

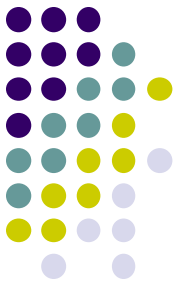
- Camera (4 points): take a picture or video of item
- Location (4 points): Pin on a map where item was found
- SMS system (4 points): Subscribe to a notification to hear if item is found, based upon keywords
- Mobile vision (6 points): automatic tag generation
- Firebase (4 points)
- 5 screens (4 points)
- 22 points total!

Implementation Plan - Found Item

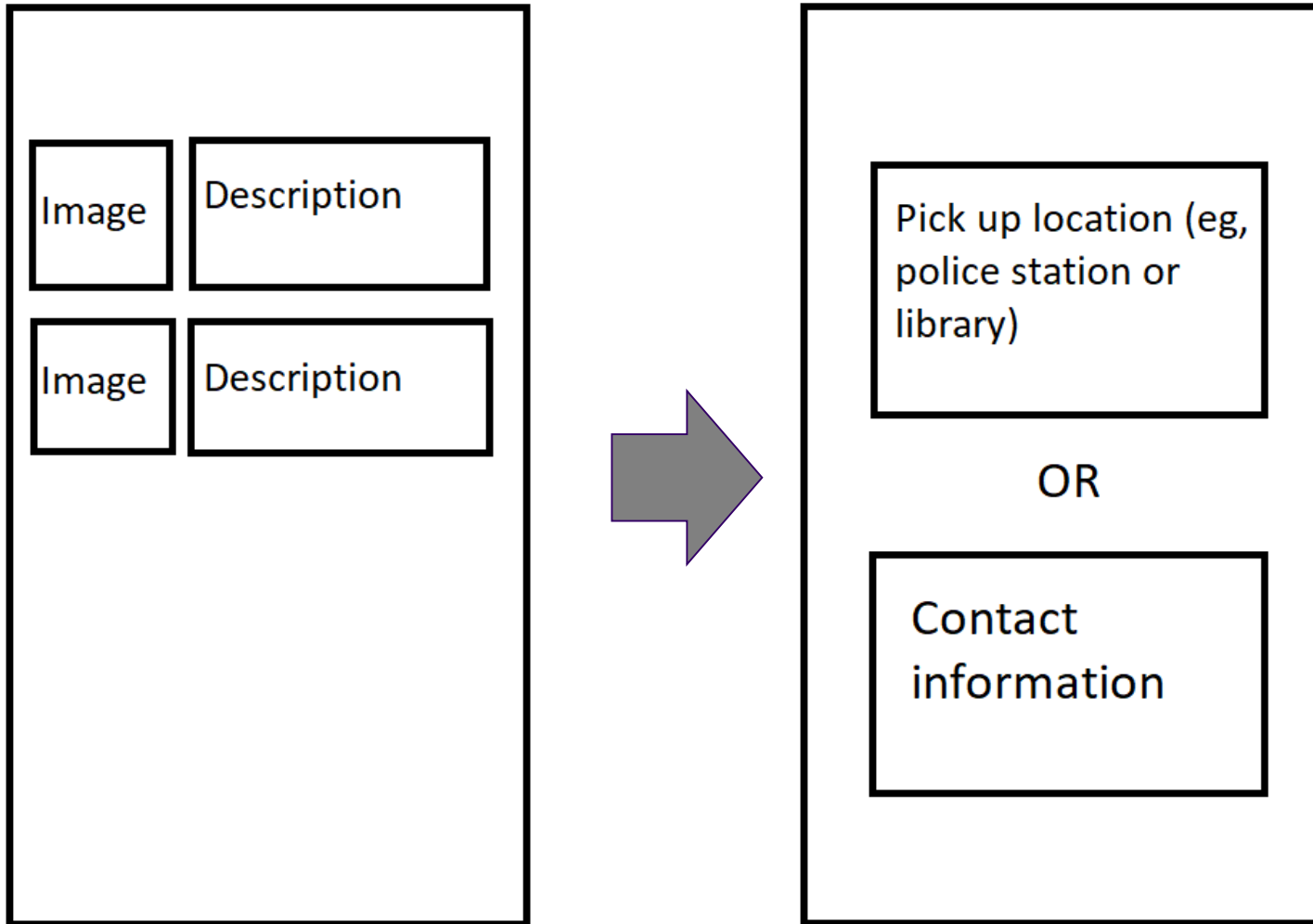


Implementation Plan - Lost Item

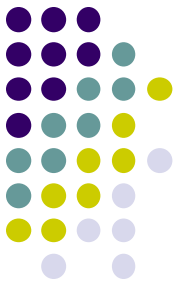




Implementation Plan - Lost Item



Timeline



Week 1

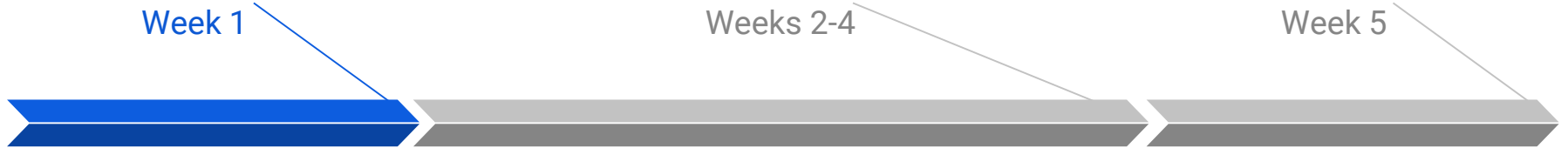
Weeks 2-4

Week 5

Design

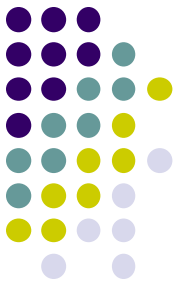
Coding

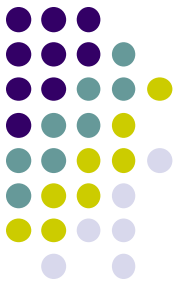
**Testing &
Validation**



Evaluation Plan

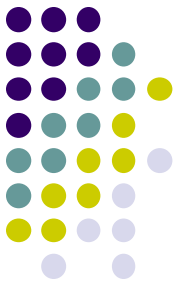
- Testing by friends and family
- Independent third party evaluation
- Timed analysis
- Ease of use
- Bug testing





References

- *Daily News*, “Lost items cost Americans \$5,591: survey”
<http://www.nydailynews.com/news/national/lost-items-cost-americans-5-591-survey-article-1.2237244>
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