Human Computer Interaction HW 1 – Brainstorm Ideas for Team Project

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1. **Interactive Weather Notification**

   Health Problem Addressed:
   Weather changes frequently sometimes even in the same day. If one's not carefully enough, personal health might be highly affected. It's important to get the first-hand information about the weather around you and adjust outfit accordingly. For instance, rapid temperature drops and raining without early awareness might result in cold. There are various apps on the market that can elegantly display weather of multiple locations and has timely update. However, the market's lack of a very good weather notification system interactively monitoring the weather around the user and push messages to user. It's not very interactive for normal apps to wait for a user to check.

   Proposed Solution:
   I propose an app that enables interactive weather notification. The messages pushed include location-sensitive weather trend, recommended clothing, and possible transitive diseases precaution, etc. When users dive into the app, they can easily browse on useful information concerning the pushed messages. The app should not only be informative but also be super fun to use. In order to make it social and more fun, the app allows users to log in with Facebook. They can program their customized weather notification messages and send them to their friends in multiple ways (Text messages, emails, Facebook messages and even app push messages from the same app). It's an excellent way to keep in touch with the surroundings.

   Programming Language Preferences:
   Android Development + Java

2. **Gesture-based Calorie Meter**

   Health Problem Addressed:
   Managing the amount of calorie one obtains daily is crucial for personal health and fitness. The effect of fitness training relies on the amount of

calorie reduced by training and the amount of calorie being obtained during the training period. Trainers need to keep track of records and adjust training plans accordingly. There exist some apps which can effectively calculate the amount of calorie for certain meal if inputting all the food involved. They can all give the relatively accurate estimation of calorie, but I have an interesting approach.

Proposed Solution:
I propose the gesture-base version of calorie meter. Gesture-based app has been a favor of the market ever since the touch-screen devices got popular. Instead of the old fashion of scrolling and selecting, gesture introduce a cooler and much efficient way of interacting with the content. User can easily remember some gesture to indicate what kind of food they have and perform these gestures together to generate a report of calorie. If users prefer the old way, the app should also support multiple selections to calculate calorie. Fitness can be a social event. It's proud and fun for users to share their fitness result, in this case the low amount of calorie obtained, to their friends. An interesting competition mechanism can be created to provide a weekly check of the sums of calorie of all Facebook friend users, and the least amount user will be rewarded. Keeping fit will be an enjoyable event to proceed with friends.

Programming Language Preferences:
Android Development + Java

3. **Food Safety Rating Cloud**

Health Problem Addressed:
When entering the supermarket, there are so many choices of snacks, cereal, and bread. They all come with brands and ingredients. Choice of food according to flavor is a personal choice, but food safety is a public concerned issue. Especially in some developing country, it's difficult for people to notice the quality of food until the result of annual examination from the government. People deserve to know more about certain food before their purchase.

Proposed Solution:
I propose a food safety rating cloud app. It works like every other rating software. Users can create entry for certain kind of food under the pre-defined categories. They can also search for the food and add comments if it exists. A star-rating and few comments will give viewers a sense of how safe this food is. A ranking mechanism for each category will recommend people the best choices for that particular kind of food. An app on the phone and internet access enables users to make wise decisions. In order to make the viewing of rating even faster, a scanner for merchant labels will help users retrieve information in one scan. They can just place the camera towards the label and the rating will come up.

Programming Language Preferences:
Android Development + Java