

CPSC 344 - Project Topics and Resources

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Project Topics

For the 6-week project, your team will implement an interface to support *one* human activity that is not well supported by the current system. As you identify and implement the corresponding functional requirements, keep interface usability and user experience as a priority.

Topic Interfaces

You may choose **one topic system** and within it, one **topic interface/activity** from this list; or, support a different activity or adjust one of these. If you decided to adjust an existing one or want to work on your team-chosen topic, consult with your workshop TAs in advance to ensure suitability and scope.

Meetup

- A. An interface to support users browsing/searching for interesting groups to join based on a hobby (e.g., by looking through group listings, entering search terms).
- B. An interface to support users in assessing a particular group, or comparing multiple groups (e.g., by reading through group details, determining which is more appropriate for their needs).
- C. An interface to support users in meeting new people (e.g., by attending a number of meetups, trading contact information, tracking events, etc.).
- D. An interface to support Meetup group organizers in handling the logistics of running a Meetup (e.g., best overall dates for members schedules, food concerns, other constraints).

Yelp

- E. An interface to support users in comparing businesses of the same type (e.g., different restaurant reviews OR comparing restaurants that meet some specified criteria like dietary restrictions)
- F. An interface to support planning an outing with one or more people (e.g., planning a group outing where different people have constraints; OR planning an date to multiple locations).
- G. An interface to support the users who are new to the city in finding something to do (e.g., finding restaurants when users don't speak the language, don't know neighbourhoods, etc.)
- H. An interface to improve the experience of searching and/or browsing of reviews (e.g. refining complex searches OR exploring restaurant choices when users need suggestions).

Save-On-Foods

- I. An interface to support efficient grocery list production based on recipes or menus provided from a limited number of sources (e.g., popular online recipe sites, YouTube cooking videos)
- J. An interface to support users in developing a broad meal plan (e.g. defining a recurring, limited-duration menu that satisfies nutritional and/or dietary restrictions).
- K. An interface to support a particular style of food type discovery (e.g. browsing or searching for food, compare to bricks-and-mortar store experience).
- L. An interface to support comparison and substitution of items (e.g. inspecting and comparing the ingredients, costs or other details of two items or brands).

Team-chosen Topics

Propose a topic interface and discuss with your TA. In general, this is suitable *only* for teams largely continuing from a team-defined Mini-Project topic that has worked out well so far.

Project Scope

Redesigning and implementing the entire existing topic system is NOT in the scope of your project. Thus, you will likely need to *fit your design of the chosen interface into the system that already exists*.

You will only design and implement what you need to support your specific topic interface/activity.

However, your interface will necessarily overlap with some aspects/functions of the existing system; you may choose to show these in your prototypes, or to include them in supported tasks in some form.

Optionally: improve the usability and user experience of the parts of the existing system that intersect your design. This is one direction in which your team can, if you wish, take the project a little further. We advise doing so only after ensuring you do a good job on the "required" elements. It will be possible to get a high grade either by doing an excellent on the required elements, or taking it further and doing very well on *all* elements.

Resource Materials for Provided Topic Systems

Because you are designing a new or improved feature of an existing system, your topic system defines much of your project. You will need to carefully consider how your interface will fit into the existing system, and what functions it must overlap with or rely on.

For each topic system suggested above, we have provided you with some resources.

Remember, you are also welcome to use, or alter your own Mini-Project resources, and to alter/extend the task examples we provide here.

- 1) **A list of *some functional requirements for the existing topic system*** that you can assume are in place when generating the requirements for the *new/improved feature your topic interface will support*.

You should *not restate* these requirements in your project, unless the requirements for your specific topic interface require that they be adjusted. While this list covers many of the main functions associated with the topic system, it is not totally complete. You may identify *other existing functions* with which your topic interface intersects - you only need to state these if required to understand the aspects of the existing interface that you address in your design and/or reports.

- 2) **Task examples that *could be used for each topic***. These examples are for your reference, and you may also use them (as-is or modified) in your project to whatever extent you like.

Meetup

Existing functional requirements:

- allow users to browse for events or groups based on criteria such as category, location, level of activity, popularity, etc.
- allow users to view group details, such as administrator information, location, comments, etc.
- allow users to view and write comments on group pages
- allow users to contact group organizers
- allow users to join a group
- allow users to create and maintain a profile
- allow users to view the profiles of other users
- allow users to directly contact particular users
- allow users to create events with pertinent details
- allow users to vet/invite/disinvite members in a group
- allow users to edit group details (e.g., categories they support, location, etc.)
- allow users to curate page comments/discussion

Task Examples

A. An interface to support users browsing/searching for interesting groups to join based on a hobby (e.g., by looking through group listings, entering search terms).

Layla, a recent university graduate, has recently started playing pool, and has found out that she is pretty good and enjoys it. She's already become much better than her friends and is looking for a new challenge. She wants to find some people that she can play with in her area, preferably within walking distance. Although she has outpaced her friends, she is still a beginner, so she would like to find others who are at a similar level. One day, she would like to be able to participate in competitive or league play, but, for now, she just wants something casual so she can get a sense of the community in her city. Managing her busy schedule, she wants something she doesn't have to commit a lot of time or energy to begin with, but still has the potential to push her forward and the capacity to expand into when she's ready.

B. An interface to support users in assessing a particular group, or comparing multiple groups (e.g., by reading through group details, determining which is more appropriate for their needs).

Mark is an aspiring, young, computer science student who is looking for opportunities to learn more about web development and meet other people with similar interests or experiences in that area. From some of his fellow peers at school, he's heard about a few web-development groups that meet on a regular basis. With a busy school schedule, Mark's time is limited. He wants to assess whether he should attend a group meeting without having to go to any of the meetings. As most of his afternoons are taken up by courses, he can only attend events if they are in the evening. He would like to be part of an active community with enough people such that he can get the support he needs. Further, he would like to communicate with group members, and to assess the group dynamics and the typical structure of a meeting, e.g., whether there is a formal agenda, who usually runs the meetings, etc.

C. An interface to support users in meeting new people (e.g., by attending a number of meetups, trading contact information, tracking events, etc.).

Charlotte just moved to a new city and wants to discover new friends and new interests. She wants to expand her horizons and try new things, but as an introvert, she is shy about going to new places and prefers interactions where she can slowly get to know people, e.g., by conversing over a shared activity. She would like to find a number of events that allow her to meet new people without a heavy investment, i.e., trying one-off new crafts or playing music together for an evening, to build up her social network piece by piece. She wants to be able to keep track of events she's attended, but not be too invested in a single group until she gets comfortable. She would like to follow up with interesting people that she's met, but she doesn't want to give out her personal information too soon, or without vetting the new people she meets.

D. An interface to support Meetup group organizers in handling the logistics of running a Meetup (e.g., best overall dates for members schedules, food concerns, other constraints).

Sally loves to learn about new cultures and languages, and is looking to expand her loose group of friends who enjoy cross-cultural exchange into a bigger group, not only make potential new friends with shared interests but to really test her language skills against new people. Right now, her usual small group tends to hang out at public cafes to practice, but Sally wants to change the venue to a bigger location to accommodate a larger group of people. Sally also wants to make a great impression for the newcomers by taking into account their food preferences, music tastes, and the like such that people would find themselves more at ease. Sally wants to get the word out, and see who might be interested in attending. She needs a lot of information, such as people's varying availabilities, food preferences, and different language skill levels. She would like to use this information to satisfy the majority of the newcomers.

Note: you may need a free trial or paid account to view group administration tools. Talk to instructors if you would like to pursue this option.

Yelp

Existing functional requirements:

- allow users to search for businesses nearby or in other locations.
- allow users to browse businesses nearby or in other locations.
- allow users to filter search/browsing by a set of criteria (price, hours, category, etc.)
- allow users to view details of businesses, including name, location, hours, etc.
- allow users to save businesses to view later
- allow users to remove saved businesses
- allow users to write reviews of businesses
- allow users to view reviews of businesses
- allow users to create and maintain a personal profile
- allow user to view the profiles of other users

Task Examples

E. An interface to support users in comparing businesses of the same type (e.g., different restaurant reviews OR comparing restaurants that meet some specified criteria like dietary restrictions)

Kim wants to go out for dinner with an old friend, Tim, who is in town for the week. They both love cheeseburgers, but Kim knows that her friend has some unusual allergies. Kim will have to take the bus to the location, but her friend will probably drive. She finds two similar burger bars, and wants to compare them to see their differences. She wants to compare differences in price, distance from her location, parking availability, dietary restriction accommodation, ratings, and reviews. She needs to be able to make this decision quickly (Tim is waiting for her to get back to him). The accuracy of her decision is also very important: she doesn't want Tim to have a bad time because he has to spend forever finding a place to park, because the restaurant does not have many options to accommodate his allergies, or because it just isn't a very good restaurant.

F. An interface to support planning an outing with one or more people (e.g., planning a group outing where different people have constraints; OR planning an date to multiple locations).

Kate has planned a surprise birthday event for her best friend (it's tonight!), but their original dinner reservation fell through. She needs to quickly find a restaurant that will take a reservation of ten people at 7pm, so that they can get to the Commodore to watch her friend's favorite band play at 10pm. She queries the guests who have said they can make it about their preferences – one person is a vegan, and needs to be accommodated. Each guest also suggests a completely different type of food to eat - while not absolutely essential, Kate would also like to accommodate as many people's preferences as possible. As they are all university students, Kate knows they are all on tight budgets, so price is important. Once Kate decides upon a restaurant, she needs to make the reservation and inform all of her dinner guests within fifteen minutes.

G. An interface to support the users who are new to the city in finding things to do (e.g., suggesting restaurants and/or meals based on preferences or previous reviews)

Minako and Kaito are on visiting Vancouver for the first time from their native Japan, and have limited fluency in English. They just checked in to their hostel and they are starving, so they want to find a place for lunch. They have a couple criteria in mind (it should be cheap and fast), but they are also very interested to ‘eat what the locals eat’. With some help from their Japanese-English dictionary, they ask the clerk at the front desk for a recommendation – he lists off names of countries, and when he says ‘Italy’ they stop him – they love Italian food! He pulls out a map and points out the locations of three restaurants for them, and then indicates for each about how expensive he thinks each one will be. They visit each restaurant (they aren’t far apart), and settle on the one that’s supposed to be cheap, but also has lots of people in it. When it comes time to order, they look around, and point to the plate of pasta that a woman sitting nearby is eating – they’ll both have that! It looks delicious.

H. An interface to improve the experience of searching and/or browsing reviews (e.g. refining complex searches OR exploring restaurant choices when the users need suggestions).

Edward is looking for a place to eat dinner. He does not have any specific criteria in mind - he would like to try something new, but he is a bit of a *foodie* and it’s important to him that he eat somewhere that has been very well reviewed by others. When he is checking out reviews for restaurants, he also takes into consideration the quality of the review and its relevance to him – does this person know what they’re talking about? are the aspects of the restaurant in the review the kinds of things that he cares about? He finds some restaurants in his neighborhood online, and after spending quite a bit of time going over the reviews of each, he chooses a new seafood restaurant that has been well reviewed by a couple of other people he thinks live in the neighborhood, and whose opinions he has come to trust.

Save-On-Foods

Existing functional requirements:

- allow users to search for food and food-related items.
- allow users to browse for food and food-related items.
- allow users to filter search/browsing by a set of criteria (price, nutritional value, category, etc.)
- allow users to view details of food items, including ingredients, nutrition, place of origin, etc.
- allow users to save items to shopping cart.
- allow users to remove items from shopping cart.
- allow users to choose between in-store pickup and delivery.

Task Examples

I. An interface to support efficient grocery list production based on recipes or menus provided from a limited number of sources (e.g., excel spreadsheet, popular online recipe sites).

(i) Isabel runs a part-time catering business. She has been hired for a wedding, and has worked out a very specific menu with her clients. She is only a part-time caterer, thus she cannot overbuy on perishable food items since she only has a standard fridge-freezer combination. She wants to ensure that she won't run out of anything, but also does not want left-overs. She is charging per-plate, and has a complete guest list, including those with some dietary restrictions and allergies. She has worked out a precise portioning system such that she knows exactly how much of everything she needs.

(ii) Cheung is doing his busy family's weekly grocery shopping. He has a library of family-favorite recipes he uses repeatedly, whose ingredients over the years he's cataloged into an electronic form¹. From this electronic file, he can quickly compose a list of recipes he will use this week, which the family will use to cook from. Next he uses this list to grocery shop. It tells him the ingredients and amounts needed to cook; he may need to check stock in the kitchen for some items. He doesn't mind having too much of nonperishables, but for fresh produce he wants just enough. It is important that he doesn't miss anything, since it won't be noticed until mealtime.

¹ E.g., excel spreadsheet or word document, or proprietary standard – you may adjust this detail for pragmatics of developing something workable in a short time.

J. An interface to support users in developing a broad meal plan (e.g. defining a recurring, limited-duration menu that satisfies nutritional and/or dietary restrictions).

John has just started an intense workout regimen, and needs to make sure he's managing his calories, vitamins, and budget. He needs to make sure that he can support his current lifestyle and stay healthy, but also wants to have an interesting and somewhat varied meal plan. He decides that he can have a certain number of standard meals that cover his nutritional needs, and some 'special' meals that change week to week. He prefers a larger proportion of fresh to frozen food. He doesn't mind eating the same breakfast and lunches every day; a different dinner every night but with a recurring pattern (Monday is pasta night, Tuesday is pizza night, etc.); and he'd like his Friday and Sunday meals to be 'special' — Saturday he plans to be out with friends, so doesn't plan a meal that night.

K. An interface to support a particular style of food type discovery (e.g. browsing or searching for food, compare to bricks-and-mortar store experience).

Antonia, an avid cook who likes to improvise, is planning a dinner for Sunday night. She has a clear idea of the main dish she wants to make (including a recipe), but hasn't decided on appetizers, sides, or desserts. She wants to quickly add the food items she's sure of for the main, but plans to let herself get inspired while shopping. Although she doesn't have a clear plan in mind, she's hoping to consider food items that complement the main dish. She is hoping to find items that are related to the ingredients of the main dish, including items that complement it through similarity, but also through items that contrast (i.e. if she was making a spicy eggplant dish, she might want both hot chips and salsa as well as cool tzatziki and pita). She is also hoping for a certain element of chance to guide her and is open to happy surprises.

L. An interface to support comparison and substitution of items (e.g. inspecting and comparing the ingredients, costs or other details of two items or brands).

Samar is a student who has some dietary issues that mean he must be very careful about what he eats — for some items, trace amounts are okay; for other items, he really can't have any of that ingredient at all. He's also on a tight budget. He predominantly cooks for himself, sometimes from basic ingredients (produce, staples) but for time convenience he also likes to occasionally use packaged or processed foods. He would like to know all the constituent ingredients of the foods he buys, but also would like to in some manner highlight, or in some cases exclude items that are a particular concern for him. Finally, he'd like to easily compare the cost of different items that meet his other criteria.