

Screen Sketches Assignment

COM S 309

read up on UI designs

(*<http://www.sum-it.nl/enguilin.html>*)

Purpose of this assignment

- It is NOT to completely specify all screens in your application. That would take way more time.
- It is to make sure each of you individually can create detailed and well described screen sketches. You do this by coming up with two screens per student. Make sure that these screens are not trivial.
- **Do use some tool** to do a good job on this assignment (Tools are listed on slide 10). Be Professional!

Step 1. Read up on UI design

read up basics of UI designs

(<http://www.sum-it.nl/enguilin.html>)

Step 2. Brainstorm use-cases

1. Identify as many actors (these are users) as you can (min three – there will typically be more).
2. For each actor or user, brainstorm functionality needed by the users.
 - For example: customer would need "withdraw money" functionality from an ATM.
3. On a SINGLE page list each actor and short name of each functionality and description of corresponding functionality.

Why do Step 2?

1. Learn to identify different types of users for a software. Look at the software from **different points of view!**
2. Doing this makes a short (i.e. **manageable**) yet **complete list** of functional requirements!

Step 3. Non-Functional Reqs

- Make a short list of three important non-functional requirements or properties of your project in **PRIORITY ORDER**
- NFRs or Properties of the program
 - Performance
 - throughput
 - response time
 - Scalability (how many users, growth in terms of data)
 - Reliability
 - Maintainability
 - Portability (which platforms/languages are must)
 - ... Other -ities

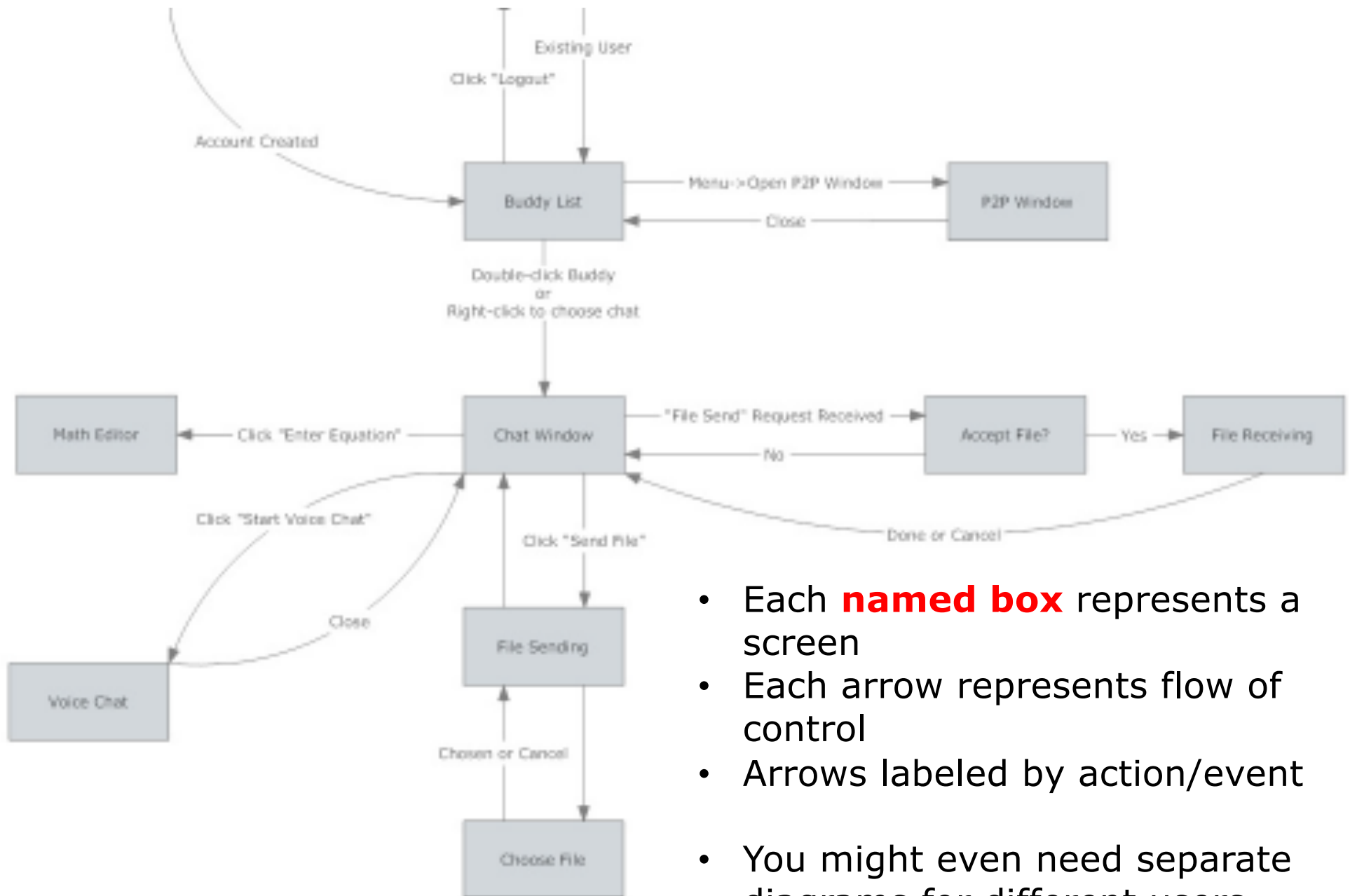
Why do Step 3?

1. These non-functional requirements **make design HARD** and so managers and architects need to know these right away!
2. Functional but "slow" or "unmaintainable" program will make your customer reject your system!

Step 4 List tables and fields

- This is a first pass attempt at recording data storage needs of your application.
- What are database tables you need for your project (i.e. what data do you need to store)? What will be fields in those tables.
- If you will be storing data in files (for example, say you will upload user files), list those. If needed, state their internal format.

Step 5. Create Screen flow



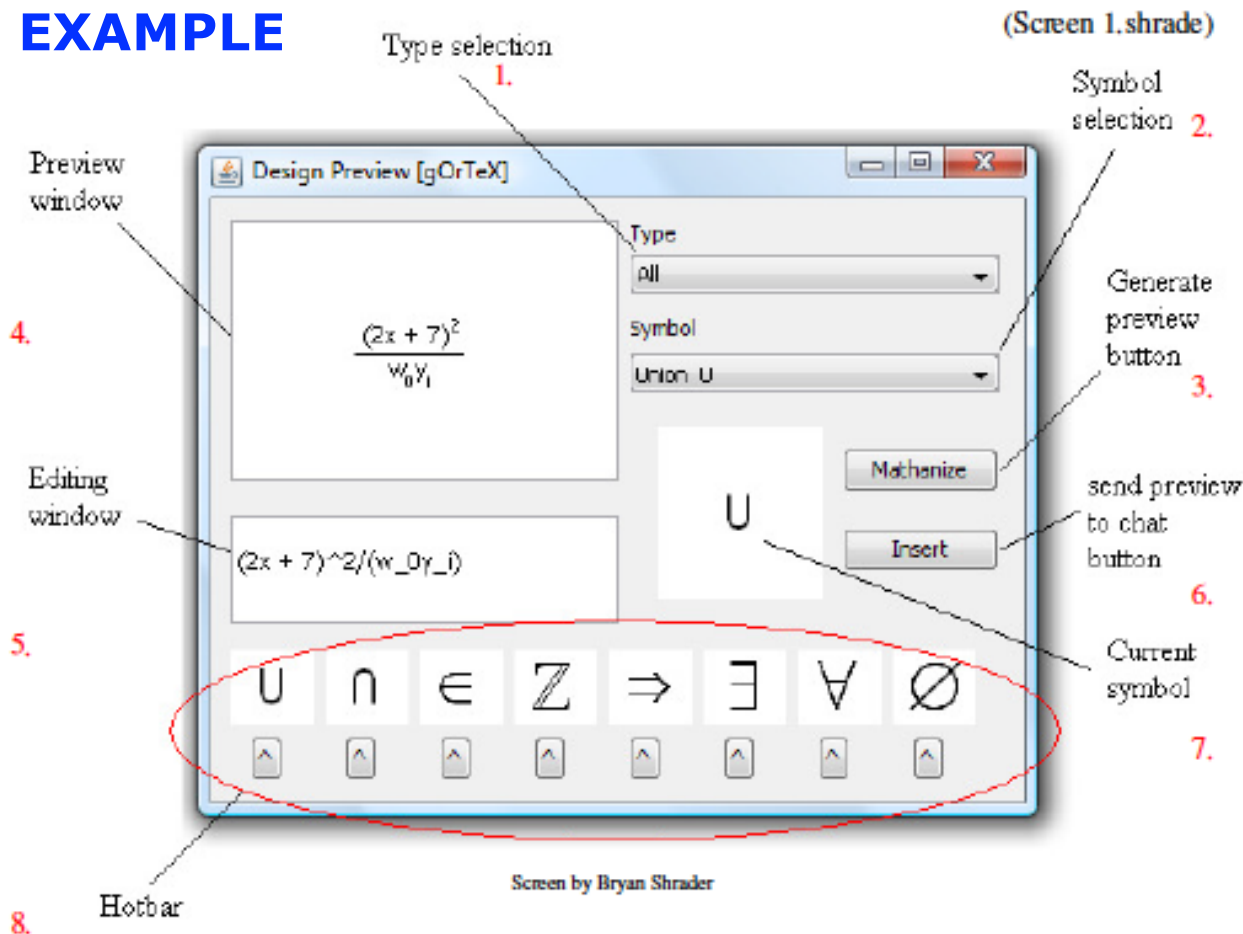
- Each **named box** represents a screen
- Each arrow represents flow of control
- Arrows labeled by action/event
- You might even need separate diagrams for different users

Step 6. Create Screen Sketches

- Two per student MINIMUM (**no trivial screens please – i.e. no login, error, help etc**). See detailed requirement in NEXT slide.
- Prefer use of tools like Pencil(see below)
- Tools
 - **Pencil** (Evolus Co, Ltd) <https://pencil.evolus.vn/>
 - Microsoft Visio
 - Or search for GUI prototyping tools

Requirements of Screen Sketch

EXAMPLE



The “gOrTeX” math editor allows one to create nice-looking mathematical expressions and insert them into the chat window. This editor appears when the option is selected from the toolbar in the main chat window. Input is specified from the editing window. The user may then press the “Mathanize” button (3) to display a nicer, formatted version of the original input text.

The math editor also provides a way to display more obscure mathematical symbols. A user may specify which symbol they wish to use by way of html directly, or they may use the two combo boxes (1 and 2) to search for their desired symbol. The first combo box (1) labeled “Type” controls which symbols will be displayed in the combo box named “Symbol” (2). Once an item from “Symbol” is chosen, it is displayed just underneath both combo boxes (7). The user may then click that symbol to insert it into the editing window (5) at the current point of the cursor, or may click one of the eight “^” buttons to place that symbol at the corresponding position on the hotbar (8).

REQUIREMENTS

One Screen and its description on ONE page.

Upper Half

1. On top right
Screen Name
Student Name
2. Items are numbered
3. Neat and legible

Lower Half

1. Purpose of screen
2. Describe numbered items

Why do Step 6?

1. Helps to show the client what the product will look like and to **get valuable feedback** from them.
2. Helps to get the entire development team **on the same page**.
3. Helps development team to start thinking concretely of **what needs to get done**.

Step 7. Team Submission

1. Submit ONE PDF file on CANVAS.
2. FIRST page Title Sheet with
 1. Title "Screen Sketches"
 2. Team number + team members list
 3. Project Name
3. Second page: List of Actors and functionality. +
4. List of Non-functional requirements.
5. Third page: List tables and their fields needed for your project
6. Fourth page: One page Screen flow diagram
7. 8 pages of Screen Sketches (minimum 2 per student)
8. Total of 12 pages at least (4 + 8 pages).

Summary of STEPS

1. Read about UI designs
2. Brainstorm functionality needed for users
3. List non-functional requirements
4. List tables and fields (and files and formats)
5. Develop Screen Flow Diagram
6. Develop UI sketches (2 per student minimum)
7. Submit as ONE pdf file for entire team on Canvas