[19sp]:

* (Placeholder for todos added from Slack)

[18fa]:

* (jennche): Add link to the FAQs (google doc) in the homework instructions
* (jennche): NOTES FROM STAFF MEETING: Emphasize testing in the beginning (potentially revise task 0/1 as "write test cases/understand test cases/read whole description of homework"). Emphasize they should understand the test cases/writing as you go. Emphasize submission test cases are only a small subset of possible test cases. Emphasize the GUI is not a way to debug -- must write test cases.  
    
  Possibly coordinate w/ Piazza to add some of these into the FAQs as well.  
    
  Make clearer what one of the failing test cases look like (explain what the assertion error is). Potentially update the toString method to make it clearer.
* (jennche): change the PLAN.txt to say "Justify your choice of collections (\*Set\*, \*Map\*, or \*List\*) for the  
   collections you use in your design." A ton of people kept on writing about how trees were less/more efficient.
* Daria: make more clear in the specification who the recipients should be for each broadcast, also recipients in the names broadcast description are a little confusing
  + Davis: off-by-one errors are very common (should the sender recieve this broadcast?)

**-- various --**

**HW7 -**

* ~~ES: In instructions, specify that for JoinCommand, when we say that the user needs to get notified of the other users names and that the users need to get notified that the user joined, they do not need to have two separate broadcasts → this just means we include the user who joined in the broadcast.~~
* ~~BH: mention the test case we give them in the instructions/make it obvious. Most of them didn’t know how to write test cases in office hours~~

~~MC (17fa): Update the tests for later commands (such as CreateChannel) to use users~~ *~~other~~* ~~than “User0” to perform the action. I had a student simply always return Collections.singleton(“User0”) and pass too many tests for my liking.~~

~~JC - `JoinCommand`: The instructions and Javadocs make it sound like `Broadcast#names` is expecting the recipients to \_not\_ include the user who is joining the channel. In fact, this is not the case as shown in the `ChannelsMessagesTest#testJoinChannelExistsNotMember`.~~

~~JC - `ServerModel getUsers`: Change the types of Broadcast methods to take in a Collection<String> (or otherwise make it consistent between these two functions)~~

~~JC - `ServerModel: getUsers` (and some related methods): These methods should have more descriptive names, e.g. `getUsersInChannel`~~

~~JC - `{ChannelsMessages,ConnectionNicknames,InviteOnly}Test`: typo in comment above setUp method. “Before each test, nitialzie\* model to be a new ServerModel with some state”~~

~~JC - think about potentially explaining one of the printouts of the test cases (toString of broadcasts) so we don't get a bunch of questions on "how do I interpret this failing assert"~~

~~JC - think about briefly explaining how the broadcasts are interpreted by the client. I think this clears up a lot of questions about who to send things to, why certain data needs to be sent, etc.~~

~~JC (from Palmer)- Encourage students to use Java 8. I just did the assignment without using any explicit loops and it came out quite nice.~~

**~~15sp~~**

* ~~Add empty string checks to Command constructor -- throw IllegalArgumentException~~
* ~~Encourage students to create their own classes~~

~~Student Feedback:~~

* ~~Felt like there was not enough time to finish the assignment~~
* ~~Felt there was an unprecedented the jump in difficulty~~
* ~~General consensus = they learned a lot but it was a long and frustrating process~~
* ~~The reading page was a goose chase following links to other pages~~
* ~~Didn’t fully understand the concept of the Broadcast~~
* ~~Didn’t realize to use classes for User and Channel until far into the assignment~~

~~Submission Feedback:~~

* ~~I had to pull 2 all nighters for this assignment and one of them was just trying to understand the documentation for the code. When I finally began to understand it I didn't have enough time to finish it!~~

~~However I have to admit that it is a very rewarding homework assignment! Once I understood the concepts I felt more confident about my programming skills.~~

~~I'd suggest keeping the assignment as is but make documentation better or allocate a bit more time for it (like paint)!~~

~~Also This assignment is not very conducing for partial credit (I had to comment out all my broadcasts for 5 even though they passed the tests I ran on my machine)~~

* ~~odd combination of very fun and very frustrating~~
* ~~This homework was way too long and difficult for the time given to us to complete it. I enjoyed the freedom we were given with the design process (perhaps we should've been introduced to this a little earlier since we've never really been told to design something with this much freedom), but this is not the only class I and other students have homework in, so we could not dedicate enough time to really fully understand and enjoy what we were doing. I suggest keeping the assignment, but giving two weeks to do it, and giving a big warning that it is much harder than homework 7. The difference in difficulty between homework 7 and homework 8 is ridiculous, and this homework shouldn't come after a homework that was pretty simple.~~
* ~~I think that Task 6 made it too long. I didnt start it as early as I maybe should have but i think through Task 5 was enough to learn a lot of the important parts of this homework.~~
* ~~It was honestly a lot of fun (though a bit stressful) and really cool to build a program that does something real.~~
* ~~DIFFICULT :(~~
* ~~Im not gonna study compsci after this assignment. I hated it.~~
* ~~This was much more time consuming and conceptually challenging than Paint, I think it would make sense to give this one two weeks and Paint 1 week.~~
* ~~I fell asleep last night(this morning) at 5am spooning my laptop.~~
* ~~HARD AF~~
* ~~The homework was very difficult; I think this homework is more difficult than others like homework 06. I see why an assignment like this is worthwhile, but it was very time consuming, especially for Easter weekend.~~
* ~~THIS ASSIGNMENT TOOK SOOOO LOONNNG AND WAS EXTREMELY FRUSTRATING. It was especially difficult to even begin with all of the reading--only after at least 10-15 hours in did I finally understand it; I was then able to actually code.~~
* ~~I didn't really understand the assignment until it was too late to actually get it in on time. I thought it was really challenging.~~
* ~~:(~~
* ~~i'm glad i saved my late days.~~
* ~~didn't write any test cases...~~
* ~~This assignment was much longer than the past ones. I felt like I learned a lot. The instructions were relatively clear. I think that a bit too much documentation was provided, and it would have been more helpful, since this was our first time extensively using outside classes, to provide advice on recommended methods or approaches. The biggest thing that could make this assignment better would be individualized feedback from TA's about how to refactor or shorten the code if we were to do this again. I know I didn't use the most efficient code, and I'd like to learn how to improve that.~~
* ~~This is a test on behalf of a student~~
* ~~None~~
* ~~Im sorry late start...~~
* ~~Still don't get the joke~~
* ~~:(~~
* ~~crossin fingers here~~
* ~~Very difficult.~~
* ~~Tough, but learned a lot. I want to be able to chat with other people besides myself though!~~
* ~~readme is annoying~~
* ~~This makes Paint look like HelloWorld. It was difficult, I had a mental breakdown, and I hope I at least get partial credit for some of the functions that don't completely wrote, but I spent countless hours on. In the future, I think it would be better to not be as overwhelming with the instructions.~~
* ~~WAY TOO LONG. we should have had 2 or 3 weeks to do this. reading took super long and debugging. and a lot of coding. too long. just way too long.~~
* ~~Longest and hardest homework so far.~~
* ~~Very long assignment, but I don't think I've learned more from any other assignment in 110 or 120. Really helped to show me the importance of style and planning out a good implementation of code~~
* ~~This was a really hard assignment to follow. I didn't know what I needed to do for the longest time because all of the resource information seemed scattered.~~
* ~~I really disliked this homework assignment. While it seemed very cool and felt great to be able to make something like a chat server, it was far too much work for one week especially after a holiday weekend.~~
* ~~This is way too hard are you kidding me~~
* ~~test~~
* ~~I still have no idea, I've read everything 10 times... Cannot figure out task 3. Should have gone to office hours more.~~
* ~~The jump in difficultly was crazy. I think we should have gotten two weeks to finish this homework. I would have finished it eventually, but it's way too hard to do in a week.~~
* ~~Gave me nightmares. Worse than capital punishment~~
* ~~This was hard, and it feels as thought there were a lot of intricacies that were difficult to catch to the layman.~~
* ~~I thought it was an interesting homework, but I felt like there was a huge time pressure and a huge jump from the previous homework to this one. I also felt as if there were not enough submission tests -- I was almost afraid to submit my homework because I felt I might waste a submission.~~
* ~~While I found this homework incredibly interesting and feel that I learned a lot it was too hard. I worked for over 15 hours and still was not able to complete the assignment, let alone debug.~~
* ~~Wayyy too difficult, instructions felt scattered and difficult to read without much presented context.~~
* ~~Impossible. So hard. I did not know how to object orientedly program.~~
* ~~Very hard and a lot of reading~~
* ~~Did not have enough time to work on this~~
* ~~I never want to use a chat program ever again.Also, this was unimaginably hard. At several points it felt as if the steps needed to get to the next seemingly-simple task were going to take days. Half to 3/4 of the way through I'd realize that a different implementation would have made one particular part much easier, but it was way to late to change everything to reflect that. Seemingly simple and necessary changes/updates to my code sometimes took hours to track down little bugs and hidden unwanted effects. The models for the tests are weird and not terribly intuitive. Though to be fair, the above reads like many descriptions of the lives of average programmers. So if you were trying to give us a sense of how headache inducing this all can be, great job!~~
* ~~i seriously spent over 30 hours on this one assignment~~
* ~~Doing this homework assignment was like trying to punch through a brick wall. Was especially sadistic to only give three free submissions. As always, though, very fulfilling to (kind of) figure it out and submit it for (most of) the points.~~
* ~~This was looooooooooooong~~
* ~~This homework was completely unfair. Not that the material was too hard, but there was too much to do in one week. Not to mention that it was over the weekend of Passover (a major jewish holiday) and Easter. Because I tried to finish instead of blowing it off like a lot of other people, I got behind in other classes. Expecting 60 hours from a student in one week especially when they didnt have the weekend to work (I asked for an extension because of the Jewish holiday and was denied) is just not right. The TA's were incredible throughout this whole thing, though, making more office hours and helping a lot.~~
* ~~some stupid mistakes, all brushed up, also style changes, hoping for that perfect 80 :). I liked the assignment generally, cool to work on our own problems with minimal guidance and some freedom for the interface.~~
* ~~omg~~
* ~~Fun and torturous at the same time~~
* ~~Clothes are thrown across the floor of my room. I haven't done dishes since Tuesday night. My laundry needed to be done by Friday and it's starting to smell. I haven't seen my friends since Thursday night. I don't have time to call my mom. These are just a few of the many symptoms of starting homework 8 the Wednesday night before it is due. It has consumed my life since the moment I first laid eyes on that horrible Spec page, up until this fateful Sunday night when I finally submit and become free. "Hold on", you're probably thinking. "You're overreacting. And you learned a lot from this experience, right?" Well sure, I did learn--but don't let yourself think for a second that you've done the world a favor! No, no no. In the time I spent working on homework 8, I could have done everything that I haven't had time to do because I've been working on CIS120 homework. I could have learned to play guitar, saved thousands of sea turtles, and solved our worlds energy crisis in all those wasted hours. So thanks CIS120, for killing the turtles and polluting the earth.~~
* ~~FUN~~
* ~~I unfortunately did not have time to start this homework assignment until it was too late, so I could not complete it. But I think even if I had started it well in advance it would have probably been too much work. There was no one thing about this homework that was incredibly hard, it's just that there were countless small things that required the most precise attention. Moreover, this homework threw us into the fire more than any before, so in addition to trying to figure out every little exception and edge case, we had to figure out a lot of implementation details. I think the point of this homework was to learn about how real applications are developed in Java, and I definitely feel that I learned this. However, this particular application is too complicated for a one week homework assignment. If we had done a subsection of this assignment for this week, e.g. tasks 1 - 3, that in itself would have been enough. Doing task 5, I felt like I was implementing very similar things over and over again to go through all the different command types and it got very tiresome, since each was just slightly different. All in all, this was very instructive, but it was definitely too much. Finally, I think the grading for this is very unfair. I spent a very significant amount of time doing tasks 1 - 3, only to find out that they are barely worth any points at all. My time was limited on this assignment, and of course I had to start from the beginning, but that meant that not completing up through task 5 meant that I will receive almost as many points as if I just had not touched the homework at all. If possible, the value of task 3 should be increased. That was nontrivial.~~
* ~~I'm almost out of time, this version is just to see how much editing I have to do before proper submission (and what I can finish in the next 3.5 hours)~~
* ~~Very interesting, but hard :( Also, some instructions are not that clear.~~
* ~~honestly, I'm tired of this shit.~~
* ~~This homework was extremely difficult. But it was pretty cool seeing that we could create such a powerful application in a pretty intro class like CIS 120!~~
* ~~Way too long. I fell behind on my other classes because of this assignment.~~
* ~~Holy crap this was brutal~~
* ~~really~~
* ~~The only problem I had with this homework is that it was very long. A LOT OF READING!~~
* ~~This assignment cut 10 years off my life~~
* ~~cool homework! here goes nothing~~
* ~~This was a massive amount of work.~~
* ~~This was very difficult in comparison to Homework 7 would have liked more Office Hours to be offered and for it to have been more similar to Homework 6 to allow us time to really understand every thing!!~~
* ~~I thought this assignment was unreasonably difficult. I spent over 40 hours on it and used two late days and I'm still not completely finished.~~
* ~~It was really really long. We needed more time, and more test cases provided to us to test our code.~~
* ~~This was really hard. Go Tiernan and Thomas!~~
* ~~This homework was way too long. I started on Wednesday night and still had to take a late day.~~
* ~~just a bit much~~
* ~~Its crazzzzy. I dont want to do it again~~
* ~~with the amount of time i'm spending on these homeworks, its almost like cis120 is my part time job haha. (it's okay, that's why i love it <3... though i totally wouldn't object to being paid.) this assignment was super frustrating and confusing for the first 5 or so hours; the documentation was not concise or legible to me and it was difficult for me to understand what the functionality of the server is supposed to be. once i fooled around a bunch and reached an understanding of what the server was supposed to do, and how ServerResponses and Broadcasts worked, the assignment became a lot more fun and interesting. i think this homework (and all homeworks in this course, actually) could be improved by giving students a very clear and explicit idea of what they're supposed to be implementing--that is, not hiding the task under lots of technical and confusing language.~~
* ~~Only finished through task 5; test submission!~~