# **CIS501A** Spring, 2016

# Project 2 Phase 2 DTS (Domestic Telephone System) Implementation



# Due (Phase 2)

- Phase 2 (Implementation) Due: 8:00AM on 3/30 (Wednesday)
- You will have an individual meeting with me to get feedback on your final design and implementation on 3/30 or 3/31
  - Please sign up
- Late Submission Policy (Reminder): The following rules will apply to all projects
  - We will deduct 20% for every 24 hours of delay in submission
    - For example, if you submit 32 hours after the due, you will lose 40%
  - If you miss an individual meeting, you will lose 30% and you must reschedule your meeting time with me
    - If you do not meet me, you will get 0 in that phase of the project
    - If you need to reschedule your meeting (emergency situation only), contact me at least two hours prior to your meeting (then, you will not be lose any point)
- Note that this is strictly an individual project. You are allowed to discuss the design and implementation issues only with me or the GTA.

### What to do

- Implement your design in C#
  - 1. Your design (object and class diagrams) must be based on the design we discussed and agreed on at the Phase 1 meeting
  - 2. Your code must perfectly match your object and class diagrams
    - If you need to change your design, update your object/class diagrams as well.
      - It is a common practice to change a design slightly when you implement it since you may not know every detail of the program until you actually implement and test it.
      - However, you must stick to the basic design which we agreed on at your individual meeting with me
  - 3. Write code as cleanly as possible
  - 4. You MUST use the platform provide in the DTS\_Project solution in the way explained in CodeHints and in class
    - You MUST NOT use your own GUI code
      - We would not have time to read and understand your boundary code

# What to do (cont)

- You must put all your code in the DTS project. Do not change file in the DTS\_BoundaryClasses project
  - Exception: DTS.cs in the DTS\_BoundaryClasses project may be modified to make necessary connections of your (including TerminalControl and TelephoneControl) objects
- 6. You must use a "lambda expression" at least in one place

### **Goals and Objectives**

- At your individual meeting, I will check
  - 1. if your object, class, sequence diagrams are correct (multiplicities, etc),
  - 2. your code exactly matches your object and class diagrams, and
  - 3. the quality of your code
- Objectives (review):
  - To understand the design process (phase 1)
  - To understand how to implement (translate) your own design into a working program (phases 1 and 2)
  - 3. To understand how easy it is to implement (translate the design into) a program once a good design is obtained
    - suppose that your design specifies a good object structure and associated use-case realizations (descriptions of what to do in each object)
    - suppose that your design has no "unknown portions" to implement

### Submission

- What to submit
  - 1. Object Diagram (refer to Slides 1-50, 1-51)
    - You must use a drawing tool (no hand drawing is accepted)
      - We accept .ppt(x), .pdf, or .jpg files only
  - 2. Class Diagram that represents your object diagram correctly
    - We accept only .uml file -- You must use WhiteStarUML
  - 3. Sequence Diagram for the "Tenant Initiates a Call" use-case
    - We will discuss how to draw a sequence diagram in class
      - You do not have to show alternation or repetition.
        - -If you have an if statement, draw the then part and then the else part.
      - For most of you, this is the first time to draw a sequence diagram. So it is ok if there are mistakes in it. Just try it.
    - Your sequence diagram must be in the same uml file as your class diagram
      - that is, you will have only one uml file to store both class and sequence diagrams
  - Your program in solution "DTS\_Project".



### How to submit

- How to submit
  - 1. In the directory named "Project2" that you created for Project 2 Phase 1 under your git working directory (which has directory .git), create a directory named "Phase2"
  - 2. In Phase2, create a directory after your LastName\_FirstName
  - 3. Put your (1) class diagram (in .uml file), and (2) sequence diagrams (together in one uml file), (2) object diagram (in .ppt(x), .pdf, or .jpeg format), and (3) program (i.e., solution directory) in your LastName\_FirstName directory
  - 4. Submit your work to Bitbucket through git
    - Refer to Project2\_Description.pdf
  - Make a zip file of your LastName\_FirstName directory and submit the zip file to KSOL
- If the above submission guideline is not followed, you will lose at most 10%

### **Boundary SubSystems**

