Objectives: To build a city in SimCity that responds to citizen’s request, withstands natural disasters and remains financially solvent.

The purpose of this laboratory activity is to use the game SimCity to explore the interrelationship between building design, urban design, and infrastructure. In SimCity, you are the mayor of a new city.

MATERIALS
SimCity 2000 has been installed in the computer lab. If you have access to a different version of SimCity, you may use that.

LABORATORY PROCEDURE
1. Develop a new map for your city. You may select either coast or river and the relative portions of mountains, water and trees using the scrollbars at the top. Then, click Make. If you want, you can further adjust your terrain with the other tools. Click Done once you are satisfied with your terrain. Don’t forget to take a screenshot of your city before moving on.

   Figure 1. Map development toolbar.

2. Next, you will need to name your city, and choose a difficulty level. I would recommend choosing the medium level. This affects the budget that you have available for city building. Since we are interested in modern-day city planning, chose the year 2000 as your start date.

   Figure 2. Start screen: input city name, difficulty level, and start year.

3. Start building your city. The basic building blocks are as follows.
a. You can adjust the speed under the speed window at the top of the screen. During the initial building phase you will probably want a slower speed (“Turtle”). Once you have some things set up and you are ready for your city to grow, you may wish to switch to “Cheetah.”

b. The toolbar shown in Figure 3 has all the components you need to build your city. To obtain the different options behind each button click and hold and multiple options will appear (for example to switch between powerlines and powerplants).

c. In SimCity, all cities need powerplants to begin. Then you will want to connect these powerplants to residential, commercial and industrial development areas. Initially these areas will appear as a colored “zone”. For example, in Figure 4, the green shaded area is the residential zone. As the city develops, buildings will crop up in these areas. Cities also need water (obviously!). If you click on the water spigot, it will show you which areas of the city have access to water and the layout of your piping system.

d. As your city starts to develop, you will want to refer to the budget information, which is shown in Figure 5 (click on the “dollar sign”). On this screen, you can adjust the taxes and amount of services being provided to the city. This may help you save money or make citizens happy. The bubbles with “?” provide advice from your city councilors. If you click on the open books, you can make some adjustments to your city. The book next to city ordinances lets you adjust city policies, such as pollution controls.
4. Help your city grow for at least 50 years. Be sure to document the growth of the city with screenshots and notes. Which neighborhood ran out of water? How were you able to fix it? Screenshots will be helpful here.
5. During the growth, change policies and document what happens. What happens if you increase property taxes? Or legalize gambling? Enact at least three policies changes, and record their effects on your city.

6. Finally, introduce a natural disaster in your city. What happens? Are you able to recover?

**Your Lab Report**

(You may also choose to write as a short essay, integrating into a cohesive discussion, including the questions considered above in the Laboratory Procedure. This essay should have 1-2 pages of text + figures.)

1. **Terrain and environment.** In a few sentences, describe the terrain and environment you started with.

2. **City growth and development.** Please answer the following in a paragraph each, using screenshots from your game to answer where appropriate.
   - Describe your (the mayor’s) philosophy about city growth. What are the key features of your city? Why did you design the city the way you did? Discuss the strengths and weaknesses of your city plan.
   - What happened to the city over time? Did it grow the way you expected? Discuss why or why not.
   - What challenges did your city face? How did you combat them?
   - What happened when you changed policies like taxes? (See lab procedure item 5).
   - What happened when the disaster struck? What geographic features made your city most vulnerable? Which parts of your infrastructure systems were most at risk? (See lab procedure item 6).

3. **Game vs. reality.**
   - Identify at least one feature of the game that is not realistic. In a short paragraph, explain why you think it is not realistic.
   - Identify at least one feature of the game that is realistic. In a short paragraph, explain why you think that might really happen. Provide a brief example of a real city that experienced similar development to your city.
   - Discuss in a short paragraph one improvement you would like to see in the game (besides getting rid of the late 1990s graphics!).