Geodatabase and Flowchart Development

You need to re-read the requirements for this project, think about the needed analysis, and turn in the following:

1) A list of required data layers, including any additional data layers you will need for analysis, and their attributes, and
2) A flowchart, which is a graphic road map of the analysis steps and sequence you'll follow. This is a draft, and you probably won't follow it exactly, but you have to think about the steps you need to estimate runoff generation, and create a flowchart.

Flowchart
Each of you will also have to develop a flowchart of your intended analysis. You should give this considerable thought now. What are your starting layers for each branch of your analysis?

Below is an example flowchart from a simple problem in the GIS Fundamentals textbook. This flowchart selects areas that are near lakes, near roads, and not in wetlands.

The flowchart shows the data sets as rectangles and operations as ovals, and succinctly depicts the steps and their order, with intermediate layers. Some of these intermediate layers are temporary, and would be discarded at the end of the analysis, but some might be important enough to save into the final geodatabase.
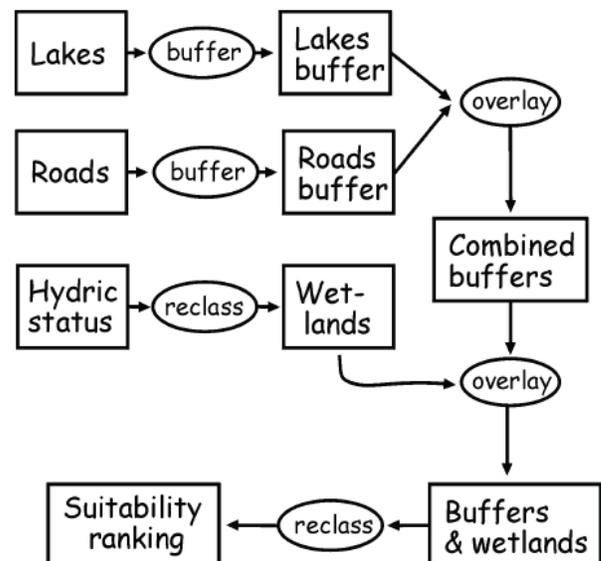
On the next page is a rather more complicated flowchart, also from the GIS Fundamentals textbook. It shows a sequence of steps for solving a rather simple problem.

The problem specification for the flowchart shown on the next page is in the table below. This example problem requires areas be identified that meet a set of general criteria

General Criteria	Refined Criteria
Slopes not too steep	Slopes < 30 degrees
Southern aspect preferred	90 < Aspect < 270
Soils suitable for septic system	Specified list of septic-suitable soil units
Far enough from road to provide privacy, but not iso-lated	300 meter < distance to road < 2000 meters

specified initially (left column of the table), which have been turned into a set of refined criteria (right column of the table). You'll need to generate a perhaps somewhat more complicated flowchart for this semester's analysis.
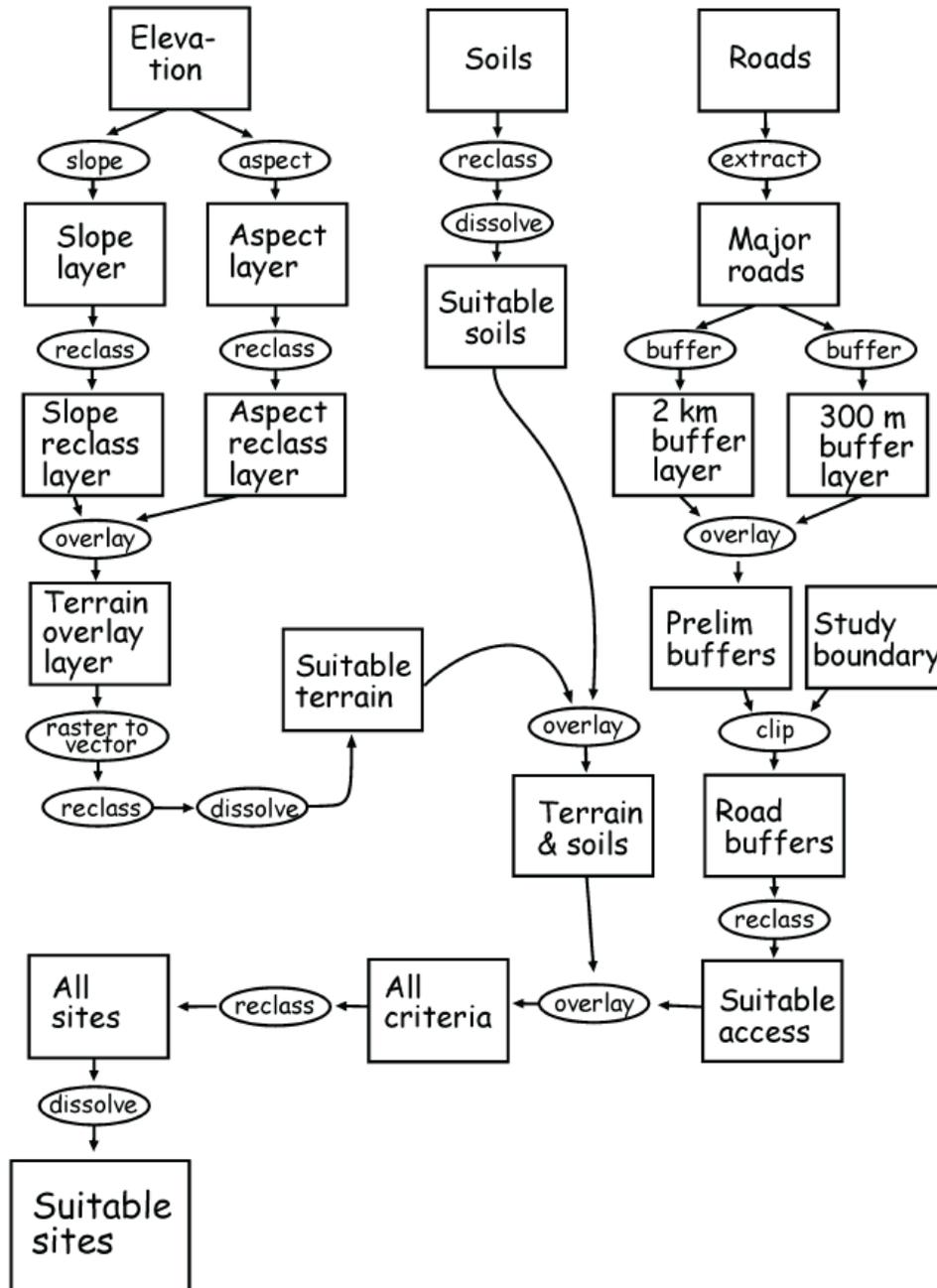
You need to create a detailed flowchart for your project.

You may use any graphics software you wish, if you have no preference, we suggest Draw.io provided on the course website, free flowcharting software, you can download it for home, and there is a version in the lab.

You must identify the specific tools you will be using by name, e.g., "raster calculator in the ovals for each operation.

You must identify the data name in each square, and the type of data (raster, vector point, vector line, or vector polygon) next to each square. You can shorten these to R, VPt, VL, and VPo if you wish.

Create a flowchart, export it to a PDF, and turn it in via Moodle.