Do some research on software failures – for example, using the Web, some magazine articles, or your personal experience. Identify one software failure that you find interesting or significant. Prepare a summary of the failure:

- at least one page long, at most 12 pt font, single-spaced
- typed and checked for spelling and grammar
- structured as shown below

Please do not use the examples discussed in class or in Pressman's book. Due on October 1 at 9:30 am.

Name:

Date:

1. In your own words, describe the failure (not necessarily the cause). Indicate how the failure was due to software, as opposed to hardware, operating procedures, etc.

2. If a root cause has been identified, report on it. If not, make a guess about the root cause.

3. In your opinion, what things related to software engineering could have been done to prevent the failure?

4. Cite your source(s) of information about this failure.

Example: In 1962 the Mariner 1 probe went off course just after takeoff and NASA had to blow it up to avoid crashing back to earth. The answer to 1 would describe this event, the date when it occurred, and the failure being the need to destroy this rocket (and the lost of $80 million). The answer would also describe the fact that the software was sending erratic steering commands to the rocket. For question 2, the reason was a mistake in the hand-written guidance equations that were provided to the programmers (i.e., this wasn't a programming error, but rather a specification error). Due to this mistake, the software was processing the track data incorrectly. The result was erroneous information that velocity was fluctuating in an erratic and unpredictable manner, for which the software tried to compensate by sending correction signals back to the rocket. Item 3 would indicate some steps that, in your opinion, could have been taken to eliminate this cause, or at least to reduce its probability of occurring. Finally, item 4 would cite the book, article, or Web site that was the source of information about this failure - in this case, Paul Ceruzzi's book "Beyond the Limits: Flight Enters the Computer Age", MIT Press, June 1989.