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a) First generation computers were vaccum tube ones and the second generation ones were the first transistor ones. Despite computers that are made of transistors were much more reliable and small, they were not cheap either and the first versions of second generation computers were wasting lots of valuable CPU time while reading punch cards until seperate machines used for reading cards into tapes or printing result from the tape. So the first users were not happy from this lack of efficiency.

b) While POSIX systems has hundreds of systemcalls Windows has thousands of them. The main reason for this is firstly in windows graphical user interface is a part of the kernel but in POSIX it is not. And another reason may be is Windows built on top of MS-DOS. It inherited lots of implementations and added new ones too.

c)

Advantages of mikrokernel:
• More lightweight. If mikrokernel is more lightweight it means it has less bugs and less possibly it will crash. So it is more secure also.

Disadventages:
• More complicated to design and structure.

• Kernel relys on external services now.
• More expensive to develop and maintain.
• It works faster.