Group Project Idea

Antivirus Learning System using a Database

The general idea of this project is to create an antivirus system that learns through patterns of prior history in the virus part of the technology world. It would learn through experiences of other antiviruses to learn what a virus intends to do within a system and common themes that those viruses have followed. The database would be for storage of the previous viruses including all other details such as dates of major incidents, type, typical targets, and many others. This information would then be processed by a program to study the computer system that it is installed upon to look for those traits and identify whether or not it is a threat to the system.

The first step would be to figure out how to code a system in order to learn from information that is stored elsewhere. The antivirus would need to fetch and analyse data and compare it to the supposed infiltrator to determine if it is a threat, what the threat could do, and what would its targets within the system would be.

The database comes into play as a system to store and categorise large amounts of data that needs to be analysed by the software at a later date in order to determine the threat in the system. A potential idea would also be adding a website that is linked to the database as well to enter new forms of viruses that they have seen on other systems but not on their own. Helping other systems learn about a threat before it even reaches the system and the self-learning antivirus discovers the new threat.

This would solve the issue of constantly updating antivirus clients and rather have one system that learns as it goes along. Also solving the issue of what antivirus brand would be needed because rather than having a program that scans for viruses that it knows about, it learns about threats based upon prior experience. This product would be purchased over current brands due to this factor of self-learning, where the owner would not need to worry again about threats that would attack their system if they haven’t updated or purchased new antivirus software.