introduction : The great technological progress, the development of various means of communication and communications, the openness of the world to each other, and its reliance on sending various types of data through networks, all of this has created a risk of this data leaking and reaching the wrong people or competitors, and thus there has become an urgent need to maintain information security.Internet risks to information security There is a large group of weaknesses in the regular Internet network that enable unauthorized people to access this data, including programming errors made by programmers while building networks, or designing various applications, such as errors in how the application deals with input.Information security concept: Information security is the complete control of information, in terms of determining who will receive this data, specifying the permissions to access it, and using a set of technologies in order to ensure that it is not penetrated by any party, and its importance doubles from maintaining privacy, to preserving important data such as customer accounts.Specialized professional certificates are given in the information security specialty, including: the (CISSP / Certified Information Systems Security Professional) certificate, and the (CEH / Certified Ethical Hacker) certificate.Data monitoring (Packet Sniffers): There are many applications that are able to know the movement of data leaving and entering the network, and by analyzing it, it is possible to determine the breaches that occurred in this network, and to know its location.Encryption: There are many protocols designed to encrypt data, preventing anyone who receives it from understanding it. The degree of complexity in this encryption varies.This field secures information and protects it from the dangers that surround it, and this field provides protection and security for computers from the previously mentioned malware, which is the biggest enemy of computers.This field is an existing science in itself.