Abstract

Software fault prediction is one of the most popular and developing research topic in software engineering. Different models can be used by the software developers in the initial stages of software development life cycle for finding defective constructs i.e., modules or classes as it aims to predict fault-prone modules before they are discovered. There are many machine learning techniques applied in the past for fault prediction. A fault also called a defect is a cause which leads to the failure of a workable product caused by hidden programming mistakes that might be actually evident as a failure. In case of software failure, the software does not work as the user assumes it to do. Software component's quality can be evaluated in terms of data fault proneness. Evaluations based on quality are made using existing or historical data or data with fault proneness collected from previously developed similar projects and the training this data. Different machine learning techniques; such as statistical method, neural network and clustering techniques have been proposed to predict faulty or non-faulty modules of a software some of which will be discussed here.