Information

A digital system refers to digital hardware and software working together to transform data into digital solutions. The hardware interacts with the software to help perform a task. A vital step to take when designing and creating a digital solution is evaluating the efficiency and effectiveness of that solution.

Functional requirements refer to the technical requirements of the system. These requirements ensure the interactions of the systems are correctly executed to perform the desired functions. It forms the behaviour of the product and how it should work. It ensures the right technology is chosen for the task and creates a relationship between expectations and reality of the delivered digital solution. Examples of functional requirements may include signing up a user, sending a message, taking a photo, etc

Non-functional requirements ensure technical specifications of the product will be delivered. Qualities and constraints of the solution are managed. These requirements do not relate directly to the systems executions, they focus on behaviours of the product and how the system should perform. Examples of non-functional requirements may include error handling, response time, reliability, performance or usability.
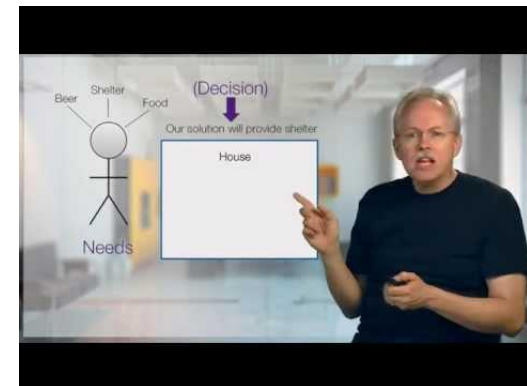
Curriculum Expectation

Students will define and evaluate current real-world examples of technology in terms of functional or non-functional requirements.

Video Resource

Click the image to open the video
This video explains functional and non-functional requirements using an everyday scenario of building a house.

Video Source: Contrux Software

REAL WORLD PROBLEMS

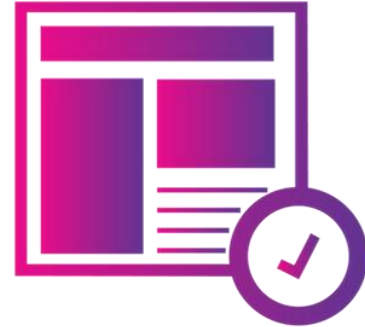Define and analyse real world problems

FUNCTIONAL REQUIRMENTS	NONFUNCTIONAL REQUIREMENTS
Correctly execute desired task	Qualities and constraints of the solution
Right tech is used for the right job	Behaviours of the product
Expectations versus reality of delivery	System performance
System meets specified needs	Security, response time, reliability, performance, usability
Sufficient storage	