

A report on use case diagrams

Science, Computer Science



Modelling is a highly useful tool that aids people to comprehend the physical systems with greater accuracy. It helps to save time and energy otherwise spent in working with the physical systems and not getting the desired outcome. In this modern era there are languages developed to make pre-defined systems known as software. One such language is the unified modelling language. The software is a great tool to simulate the real-time environment. The simulation can save the real-time machines from any mishap. This will further give an idea of innovating the new systems. The use case diagrams are one such diagrams which provide a smooth working interface, to comprehend the physical systems. Let us explore about them.

History background

The history of making such diagrams goes back to the late years of 20th century wherein the language was developed. Since then amongst the numerous uses of this language the making of diagrams also came into existence. They began to be used widely owing to the ease of their drawing and usage. It has no such specific historical background.

Brief idea about Use diagram

The use case diagrams are the type of pictorial representation wherein the link between the user and the machine or any service is depicted. The way a person will make use of the functions of the machine and the expected outcome or decisions one has to make, is all incorporated in one diagram. It depicts the actions that a person will take. The use case diagrams are an approach to gather information about the reaction of the machine one is working on. They are made with the help of Unified modelling language.

They are also known as UML diagrams. These are quite helpful while trying to decipher about the utility of any machine or service. They can be understood by any person without having the in-depth knowledge of the underlying processes or systems.

Requirements to make the diagrams

The use case diagrams require simple symbols to make them. They have a significance attached to each of the symbol. The symbols and the meaning conveyed through them are:

Oval: This shape is used to illustrate the use case. The use case is nothing but any action that the user will take to complete any process or system. The name of the function the user will carry is written in the oval shape.

Rectangle: This shape helps in defining the limit of the use case used. It sets the boundary of the action to be performed. It is not a compulsory element to be used. **Arrow headed lines:** These lines are used to connect the multiple shapes employed in the diagram. It depicts the link between the two shapes. These links are necessary as to guide the user to comprehend the process.

Rectangles: To depict any package two rectangles are used, one atop the other. The one which lies atop another is a relatively narrower one with the name of package in it. This is also a non-mandatory element to be used. A

human icon: It is the most important element of this diagram. This shows the user by a small caricature illustrating a human figure. It can have variety like with coloured heads, depending upon the multiple number of such users in the whole diagram.

Making of a Use Case Diagram

The drawing of these diagrams is a simple process. One needs to be aware of the processes and systems which are to be shown in these diagrams. Also the links are important to define a particular process. Once one is aware completely about the systems to be illustrated then one can easily draw them. Further one must ascertain the names of the use cases, packages or any other element which will be used. Also the makers must make things in an organised and clear manner. Not all relationships need to be shown. A few really important will suffice. Also one can use extra notes to be mentioned at the bottom. Uses of this diagram

The uses of this highly useful diagrams are:

- To analyse any complex system quickly,
- To train the new workers who would be using this system,
- For high level designing and computing,
- If one wants to model the contents of the system,
- Forward and reverse engineering,
- Looking the loopholes that are there in the system.

Advantages

This highly useful diagram has quite a few advantages to its side. They are:

- Effortless making: They simply require the normal drawing skills of any average person. No special expertise or extra skill is required. They are so much easy to make.

- Magnify the visual memory: Since it is a visual illustration, it enhances the visual memory of a person. This is quite helpful in retaining the system.
- Scope of innovation: Since one is able to check the areas which need improvisation, then definitely there are chances to look for innovative processes.
- Shows the dynamic operation: The diagram is able to show the probable working of the system as a whole in a bigger format. It helps to take into consideration every little detail.
- Shows the interaction of sub-processes and elements: It illustrates the interplay amongst multiple elements used.

Conclusion

This was all about the use case diagrams. They are surely worth spending your time in making them. There can be nothing as good as understanding with the help of pictures. They are retained in the minds of the user for longer. It is great tool for long processes which might have complex data and typical processes. With advancement in technology, various software are available which can help you in making these diagrams. Also it makes big things into smaller chunks, which is way handy at the time of understanding anything. One can easily use the diagrams for your business process and exploit its potential. All such systems point to the modern-day tools which make out lives easy. One must make use of such tools and expand their business.