

Describe the  
application and limits  
of essay



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Below I will describe three different types of programming paradigms procedural, object oriented and event driven including the advantages and disadvantages of these types of programming and how they are different from each other.

Procedural Programming -The first and most simplistic programming paradigm is procedural programming as it works by steps starting from an input then to processing this input and result with an answer depending on what steps the programmer specified the program to do to reach the desired end state. As procedural programming is very easier to learn than other forms of programming it allows companies to hire employees without having to retrain them as it is commonly what most programmers learn first. Also as procedural programming has a clean layout it allows smaller projects to be completed at lower cost as less effort is needed to keep track of the code and the ability of re-use the code for the same program allows programs to cut down wasteful time in recoding of the same procedure. However Procedural programming comes with limits especially with large projects as the code of the program will need constant refining and editing so because of this the program will turn into Spaghetti code which means that the flow of the code isn't neat and scrambled around the program making it confusing for developers to keep track of which part leads to what. This will also result in hiring new employees to be much more expensive as it will take weeks before the programmer will fully understand innards of the program and how it works. Also as everything in procedural programming is connected to each other making modification are difficult to make without causing errors as changing

one piece of code will result in an butterfly effect as other pieces of codes may depend on that piece of code.

Object oriented programming -The second programming paradigm object oriented is different to procedural as procedural breaks down a program into a collection of code structured to run step by step but object oriented programming breaks a program down into objects which are independent to the rest of the program so one whole single task can be put into an object instead of it having to executed first previous sets of code which may be connected to other tasks. Because the objects are self-sustaining they can be easily implemented into other programs as they don't need to be drastically modified to fir with the structure of the other program which procedural programming would need. Objects also make it easier for programmers to understand the flow of the program as they don't need to look through the whole program to find one task as everything for that one task would be encapsulated into one objectObject oriented also has limits mainly because it's a newer type of programming so most companies need to train employees to train new staff into programming in that way as object oriented tends to need more knowledge and skill of programming, this will result in higher a slower start of creating the beginning of the program and also would increase costs of training staff. Another disadvantage is that object oriented tends to take up more processing power as it takes up more memory as loading each individual object will require loading the same functions and steps.

Event driven programming -Event driven programming is typically used for GUI's such as word processing and spread sheets as they are made to

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respond with inputs generated by users. Even driven programs work by execute different codes depending on external stimulus that has been inputted, this is done by using event handlers so when a certain input has been made a batch of code is executed to respond with that input. Event driven programs can be written in nearly any programming language as it a style of programming which splits the program into handles which are triggered whenever the desired input is made for example when a user clicks or drags an object an handler is triggered causing the program to do what the developers have coded when that happens. The limits of event driven is that it takes more processing power as it needs much more coding to manage each individual input that is possible for the user to make so the program would need to consume more memory. Also event driven is only useful for GUI programs so companies which train employees on how to write code as even driven will lose money when they don't make a program which uses GUI's, this also shows that event driven isn't useful for commercial programs as they require data processing which isn't needed of event driven.