

The Advantages of Modular Design in Software Engineering

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Abstract

The purpose of this research poster is to discuss the benefits of using a modular approach to software engineering. Modular software design is done by breaking the larger code into smaller sections, think modules, that hold specific functions. Modular design is shown to improve the design process by allowing better re-usability, workload handling, and easier debugging processes.

Figure 1. General diagram of modular program

CONCLUSIONS

There is substantial evidence to suggest modular software design has more advantages than disadvantages and is a fairly good choice to consider when thinking of methods used to design software. There is not substantial evidence to suggest how much better, if at all, it is than other design techniques however. This is something that could be considered for future studies which would further help companies when designing software.

FUTURE WORK

There is not as much hard data driven evidence of the benefits of using a modular design approach over other types of approaches. One way to change this is potentially perform a field study to observe development teams that use various approaches to software design. In this type of study the design technique used would be a control variable and the response variables of productivity, cost, bugs that had to be handled, development speed and so forth. Given the reusable nature of modular programming this study would ideally follow