PROGRAMMING PARADIGMS CONCEPT

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Preface

Programming languages have gone through several paradigms since 1940s. The researchers have done many innovations to introduce new programming language which is easier to understand and compatible with any platforms of Operating Systems (OS) and machines. Now, the aim or the vision of future programming language is to help novice programmers to write codes using natural language such as English language or any selected language. Life becomes easier and difficulties in understanding the programming language is not the main reason anymore.

This book has been organised accordingly to paradigm of programming language from imperative paradigm to object-oriented, functional, logic and several other important paradigms. All students have been exposed to basic programming paradigm such as structured programming which represents the imperative paradigm. In the following semester, students will be introduced to object-oriented programming paradigm with several important concepts such as abstraction, inheritance, polymorphism, encapsulation and information hiding. All these concepts should be liaised to the similar concepts in the imperative paradigms and other paradigms as well.

The authors expect the students to grasp the main concepts of each paradigm and able to compare the advantages, effectiveness, suitability and constraint before deciding to choose which programming language is required for the project development. Besides, the authors hope, the dream will come through in the future that a new and better paradigm of new programming language will be introduced. This is the highest hope of all programming experts.

Instructors of the course who use this book as a textbook or main reference will realise that there are many programming languages with different paradigms such as C, C++, Prolog, LISP, JAVA, Scheme and Python. The instructors are advised to use those freeware programming languages which are mentioned and they are all available on the Internet. The software or installers can be freely downloaded and all are given as open source softwares for community responsibility.

Acknowledgement

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