

## **PART A**

### **EXPERIMENT NO. 9**

#### **A.1 Aim: Coding the functionalities**

#### **A.2 Theory:**

The coding depends on individual's project. Any programming language can be used according to student's interest.

**Coding:** The objective of the coding phase is to transform the design of a system into code in a high-level language and then to unit test this code. Good software development organizations normally require their programmers to adhere to some well-defined and standard style of coding called coding standards.

**Coding Standards-** A coding standard gives a uniform appearance to the codes written by different engineers. It enhances code understanding. It encourages good programming practices.

#### **Coding Standards and Guideline:**

Limiting the use of global data type. Contents of the headers preceding codes for different modules naming conventions for global variables, local variables, and constant identifiers. Error return conventions and exception handling mechanisms Representative Coding Standards. Do not use a coding style that is too clever or too difficult to understand. Avoid obscure side effects. Do not use an identifier for multiple purposes. The code should be well-documented.

#### **Code Review:**

Code review for a model is carried out after the module is successfully compiled and all the syntax errors have been eliminated. Normally, two types of reviews are carried out on the code of a module.

**Code Walk Through:** To discover the algorithm and logical errors in the code.

**Code Inspection:** The aim of code inspection is to discover some common types of errors caused due to oversight and improper programming.

**Software Documentation:** Good documents are very useful and serves the following purposes. Good documents enhance understandability and maintainability of a software product. It helps the users in effectively using the system. Helps in effectively handling the manpower turnover problem. Helps the manager in effectively tracking the progress of the project.

Software Documentation classified into the following: Internal documentation: These are provided in the source code itself

External documentation: These are the supporting documents that usually accompany a software product

## PART B

(PART B: TO BE COMPLETED BY STUDENTS)

*(Students must submit the soft copy as per the following segments within two hours of the practicals. The soft copy must be uploaded on Blackboard LMS or emailed to the concerned Lab in charge Faculties at the end of practical; in case Blackboard is not accessible)*

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Date of Experiment: 17-02-2023	Date of Submission: 17-02-2023
Grade:	

**For the Code please refer to the GitHub with this Link : [GitHub Link](#)**

### B.4 Conclusion

*(Students must write the conclusion as per the attainment of individual outcome listed above and project definition noted in section B.1 including “Define the System, Motivation, Scope of the System and Applications”)*

1. Define the System: The Mindscape Learning website is an online platform that provides educational resources and tools for students, teachers, and parents. The system includes various features such as interactive learning activities, personalized study plans, progress tracking, and gamification to enhance the learning experience.
2. Motivation: The motivation behind the Mindscape Learning website is to provide a comprehensive and engaging platform that empowers students to take control of their learning and helps teachers and parents to support them in their educational journey. The platform aims to make learning more accessible, interactive, and effective.
3. Scope of the System: The scope of the Mindscape Learning website is to offer a range of educational resources and tools for K-12 students. The platform includes various subject areas such as mathematics, science, language arts, and social studies. The system is designed to cater to the different learning styles and abilities of students, from struggling learners to advanced students.
4. Applications: The Mindscape Learning website can be used in various applications, such as:
  - Personalized learning for students to track their progress, identify their strengths and weaknesses, and receive feedback on their performance.
  - Supplemental resources for teachers to support their classroom instruction, including lesson plans, worksheets, and assessments.
  - Parental involvement to monitor their child's progress, provide support, and reinforce learning outside the classroom.

- Homeschooling to provide a comprehensive online curriculum for students who are learning at home.

Overall, the Mindscape Learning website is an edtech solution that provides a comprehensive and engaging platform to support the educational journey of K-12 students, teachers, and parents. It aims to make learning more accessible, interactive, and effective for everyone involved.