



Snake And Ladder Game

→ **About Project:**

We have created C++ console based game. It is a two player game. We have used concepts of Object Oriented Programming like Classes, Function Overloading, Encapsulation, Inheritance etc.

→ **The Data-Structure used:**

Direct Access Table.

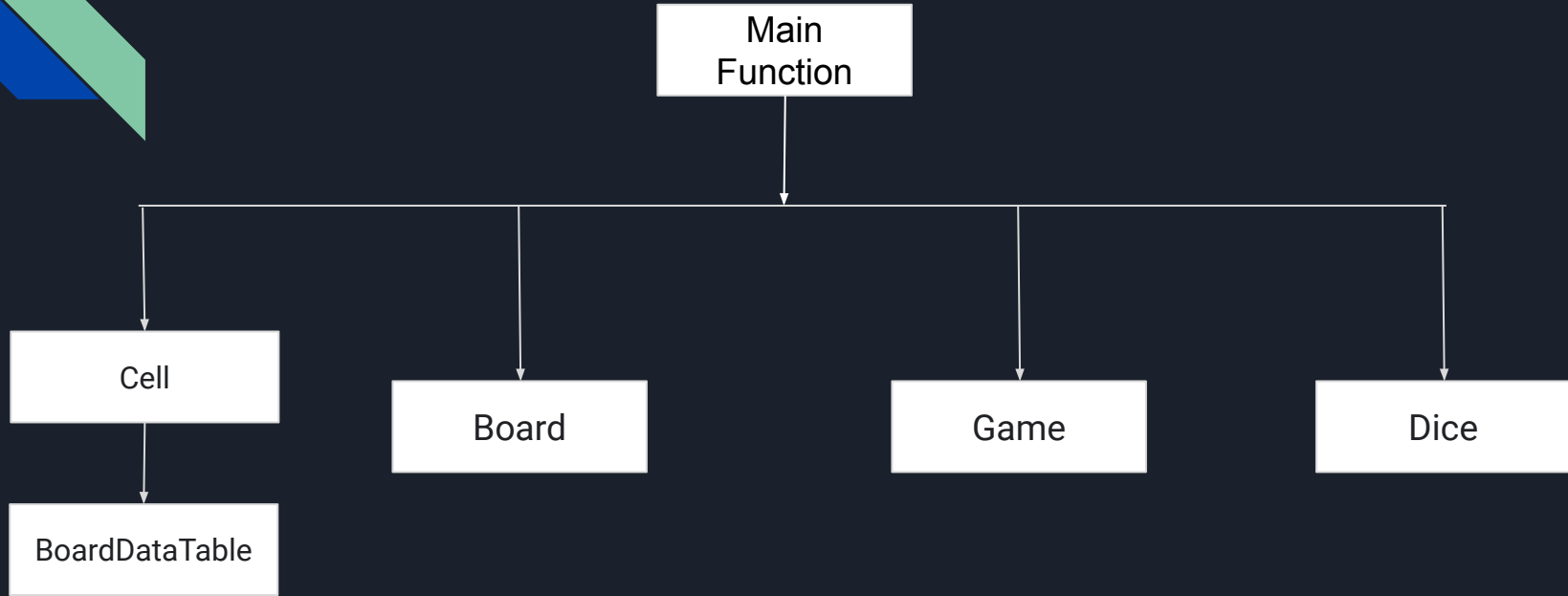
Created by

Patel Harsh Bharatbhai
Metkel Harshkumar Anandbhai

Problem Statement:

- To make a console based Snake And Ladder Game. With C++ as programming language and using concepts of OOPs and Data-Structures.
- In this Game there are three levels. In level 1 there are less number of snakes and ladders and as player goes for higher level the difficulty of Game will increase.

Project Structure:



→ Extra headers files used in Project:

We haven't used any such libraries in our project.

Just in main function to calculate the time for which two players play the game we have used time.h header file, which provides the function clock().



What we have learnt during this project:

- In this Project we learnt about various OOPs concept like Encapsulation (data-hiding) ,Inheritance, Function Overloading , etc.
- Also we learnt about Structured way Programming , by using different classes. How all the classes integrate together to give all the functionalities as project codebase becomes larger. With each functionalities associated with different classes it became very easy to understand the codebase.
- We have also learnt about data structure called Direct Access Table by implementing it. Before this we only knew concept of Direct Access Table. But in this Project when we used this Data-Structure, we understood how it helps in performing tasks find and modify in a very efficient way.



Things which we can improve in Future:

- In future we can also show the snake and ladder shape using Graphics.h header file, but for now we have denoted them as Number like for Ladder LiS and LiE , where i denoted ladder/snake number and S and E denotes start and end of ladder/snake.
- In future We can improve upon user interface of our Game, in showing the scores, the number on dice, also final result. And all this can be done in much graphical way by using above mentioned header file.