10,000 Dice Game **Sample Help**

Sample Description: **10,000 Dice Game**

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Control

For Help on Help, Press F1

10,000 Dice Game

The 10,000 Dice game is a popular game enjoyed by families. You will learn how to play the game as well as some of the programming techniques used to develop the game.

The 10,000 Dice game is usually played with five dice. A player receives points based on rolling 1's, 5's and three-, four- or five-of-a-kind on a roll. Players can keep points they receive on a roll, or risk trying for additional points by rolling non-scoring dice. A player may quit at any point and keep the points earned or keep rolling dice until a roll results in no points scored. If this happens, the player loses all earned points and the turn ends.

The first player to score 10,000 points is the winner of the game.

Playing the Game

Game Objective

The objective of the game is to score 10,000 points. The first player to reach 10,000 is considered the winner! Your turn continues as long as you score points on your roll. If you fail to score any points on your roll, you lose your score. You may stop at any time during your turn and save your score total by clicking your Player button. This also will end your turn.

Selecting Players

The first step in playing the 10,000 Dice game is to use the Options|Players menu to select the number of players for the game. A game may consist of 1-6 players. Selecting the number of players will automatically hide/unhide corresponding player score buttons and labels. Clicking the File|Reset menu entry will display scoring options for the maximum number of players.

Starting a New Game

To start a new game, click the Options|New Game menu entry. All scores will automatically be cleared and reset.

Sample Turn

1. Click the Roll button to roll all five dice. You rolled the following: 5   3   3   4   3

2. Click the Keep Match button to keep the 3-of-a-kind. This scores 300 points and checks the 3's.

3. Click the checkbox below the die showing a 5. This scores an additional 50 points, bringing the total to 350.

4. At this point you can click the enabled Player 1 button to keep this score and end your turn
                              OR
   You can click the Roll button to re-roll the remaining 4 die.

5. You choose to take a chance and click the Roll button. You roll a 1!   Click the checkbox below the 1 die to add 100 points to your total. Since all five dice have scored, your turn is automatically extended. Click the Roll button to roll all five dice again.

6. On the new roll, you roll   2   2   3   5   1.

7. Click on the checkbox below the 5 and 1 to add 150 points to your score.

8. This time you click the Player 1 button to save your total of 600 points. Smart move. Had you clicked the Roll button once again and not rolled a 1, 5, or 3-of-a-kind, your turn would be over and you would have lost your 600 points!

A new turn is then created and Player 2's score button is activated.

Game Strategy

One strategy of the game is to only click on 1's, but not 5's unless you have to. Remember that you have to click on at least one die after each roll. Let's say you roll 4   2   5   1   2. You might consider keeping the 1, but not the 5. By re-rolling four dice instead of three, you increase your chance of rolling 3-of-a-kind.

You may wish to end your turn if you've scored on four of the five dice. You have to ask yourself, "Just how lucky do I feel?"

Program Overview

Initializing the Program

To initialize the program, you may either click the File|Reset menu, which executes the ResetApplication method, or click the Options|New Game entry, which executes the NewGame method. The ResetTurn method is used to initialize the images of the dice and reset the checkboxes.

Rolling the Dice

Rolling the dice is handled by the btnRoll method. This method determines automatically if a new turn is necessary based on the lblLostAmount label having a Caption value. When you fail to score on a roll, this label indicates the score you just lost.

The btnRoll method also checks to make sure how many dice are being rolled. If you click the checkbox immediately below a scored die, this die is not rolled. The RollDice function is called to randomly, to generate a number between 1 and 6. This value is assigned to the images of all dice that are rolled.

Immediately after all the dice are rolled, the scoring total is computed. First, the CheckForDuplicates method is called to determine if any 3-,4- or 5-of-a-kind die were rolled. If so, the ComputeDiceScore method is executed and the Keep Match button enabled. Otherwise all unchecked dice are examined for valid scoring values. If none of the dice scored, your turn is ended.

Recording Die to Keep

Each time any of the five checkboxes immediately below the dice are clicked, their corresponding value is checked. If 3-,4- or 5-of-a-kind were rolled on a particular turn, the btnKeep button is activated. This indicates a special scoring opportunity. Clicking the Keep button computes the scoring total of the matching die and checks the corresponding checkboxes for you.

If you did not roll 3-,4- or 5-of-a-kind on a turn, clicking a checkbox below a die automatically determines if the die is a valid score (i.e., 1 or a 5). If it is valid, the corresponding score (i.e., 100 or 50 points) is appended to your total. After you click on a checkbox and the score is updated, the method AnalyzeCheckBoxes is used to determine if any additional dice are left to roll. If all dice have scored (i.e., been checked), you may continue your turn with a fresh roll of all five die.

Moving to the next player

A method IncrementPlayer is used to determine the current player, then activate the next player by executing the ActivatePlayer method.

Scoring the Game

Scoring the game is based on an accumulation of points as follows:

Scoring

Each Die Rolled	Points
1	100
5	50

3-of-a-kind Rolled		Points
1	1000	
2	200	
3	300	
4	400	
5	500	
6	600	

4-of-a-kind Rolled		Points
1	2000	
2	400	
3	600	
4	800	
5	1000	
6	1200	

5-of-a-kind Rolled		Points
1	4000	
2	800	
3	1200	
4	1600	
5	2000	
6	2400	

Remember, you may stop your turn at any point and keep your total. If you fail to score additional points on a roll, you lose your total and end your turn.