## **Acey Deucy**

Acey Deucy is a simple card game. You are dealt 2 cards and have to decide if the next card will be between the two dealt. If you don't think you have a chance the game deals you two more cards, no score for that round. But if you do think you have a chance a third card is delt. If your right you score 10 points, if you're wrong you lose 25. If the two cards dealt are adjacent to each you automatically lose 25 points. When that happens a too-cautious player may find themselves having a hard time maintaining a positive score.

While it looks like a card game, there's no actual deck logic involved. The cards are chosen at random, their suits are random (and generated on the fly by the showcard method). In essence the "card" aspect of the game is all digital smoke and mirrors.

Acey Deucy is written by Joseph Larson inspired by a BASIC game by Bill Palmby as found in 'BASIC Computer Games' edited by David H. Ahl (c) 1978

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ACEYDEUCY.C
                 You will need: a C/C++ complier.
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include <ctype.h>
#define WIN 10
#define LOSE 25
int score;
char suit[4] = {'H', 'D', 'S', 'C'};
char face[16] = "0123456789XJQKA";
char body[4][6] = {" JACK", "QUEEN", " KING", " ACE "};
int odd[4][3] = \{\{7, 11, 7\}, \{3, 11, 5\}, \{9, 1, 9\}, \{5, 11, 3\}\};
int even[4][3] = \{\{2, 8, 4\}, \{10, 6, 11\}, \{11, 6, 10\}, \{4, 8, 2\}\};
void intro() {
  printf("\nAcey Duecy\n""----\n"
  "Acey Ducey is played by having the computer deal out two cards. The \n"
  "player then decides on whether the next card chosen will be between the \n"
  "first two dealt, Aces high.\n\n"
  "You gain %d points every time you guess correctly and lose %d points for\n"
  "every incorrect guess.\n\n"
  "The deck is shuffeled after every hand, so no card counting.\n", WIN, LOSE);
  srand(time(NULL));
void showcard(int c1, int c2) {
  int a, n, x, y, s[2], c[2];
  c[0] = c1; c[1] = c2; if (c[1]) n = 2; else n = 1;
  s[0] = rand () %4;
  do \{s[1] = rand () \%4;\} while (s[0] == s[1]);
 putchar ('\n'); for (a = 0; a < n; a++) printf ("\t,----.");
 putchar ('\n'); for (a = 0; a < n; a++) printf ("\t| %c|", face[c[a]]); putchar ('\n'); for (a = 0; a < n; a++) printf ("\t| %c|", suit[s[a]]);
  for (y = 0; y < 4; y++) {
    putchar ('\n');
    for (a = 0; a < n; a++) {
      printf ("\t| ");
      if (c[a] < 11) {
        putchar (' ');
        for (x = 0; x < 3; x++)
          if (c[a] % 2)
             if (c[a] >= odd[y][x]) putchar (suit[s[a]]); else putchar (' ');
          else if (c[a] \ge even[y][x]) putchar (suit[s[a]]); else putchar (' ');
        putchar (' ');
                                                                Listing continued on page 2...
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ACEYDEUCY.C Listing Continued from Page 1....
      } else printf ("%s", body[c[a] - 11]);
      printf (" |");
 putchar ('\n'); for (a = 0; a < n; a++) printf ("\t|%c | ", suit[s[a]]); putchar ('\n'); for (a = 0; a < n; a++) printf ("\t|%c | ", face[c[a]]);
 putchar ('\n'); for (a = 0; a < n; a++) printf ("\t\`-----\");
 putchar ('\n');
void playhand() {
 int card1, card2, card3;
 char yn[50];
  printf("\nHere are your first two cards:");
  card1 = rand() % 13 + 2;
  do \{card2 = rand() \% 13 + 2;\} while \{card1 == card2\};
  showcard(card1, card2);
  if (abs(card1-card2) == 1) {
    printf("\nOh, tough luck. There's no card between those two."
      "\nSorry. You lose %d points", LOSE);
    score -= LOSE;
  } else {
    printf ("\nDo you think the next card will be between these two? ");
    do {
     printf ("(y \in ");
     scanf ("%s",yn);
    } while (tolower(yn[0]) != 'y' && tolower(yn[0]) != 'n');
    if (tolower(yn[0]) == 'y') {
      printf("\nHere is the third card");
      do card3 = rand() % 13 + 2;
      while ((card3 == card1) || (card3 == card2));
      showcard(card3, 0);
      if (((card1 < card3) && (card3 < card2))
      || ((card2 < card3) && (card3 < card1))) {</pre>
        printf("\nCongratulations. You were correct.");
        score += WIN;
      } else {
        printf("\nSorry. You lose 25 points");
        score -= LOSE;
    } else {printf ("\nNothing ventured, nothing gained,");}
 printf("\nScore : %d.", score);
                                                       ACEYDEUCY.EXE
int playagain() {
 char input;
 printf("\nDo you wish to continue? (y\\n) ");
 while (!isalnum (input = getchar()));
 if (tolower (input) != 'n') return 1;
 else return 0;
int main() {
 intro();
 do playhand(); while (playagain());
 printf ("\nThanks for playing!\n");
  exit (0);
```