Coin Collector

Objective:

The primary objective of the "Coin Collector" project is to create an engaging and interactive two-player game using Computer Organization and Assembly Language 8086 processor in 32-bits. The game aims to challenge players in collecting coins by navigating through a virtual environment, utilizing specific keyboard keys for movement. The core objective includes implementing functions for player control, coin creation, score updates, and handling game-over scenarios, resulting in an entertaining and competitive gaming experience.

Library Include:

This project's success hinges on the proficient utilization of procedures from the **Irvine32 library**, underlining the seamless integration of code elements for player control, coin collection, and score updates.

Display:

The game features a visually appealing display that includes:

1. **Player Characters:**
   Two players are rendered on the screen, each characterized by unique attributes, positioned at specified coordinates (x, y).
2. **Coins:**
   Randomly generated coins appear on the screen, featuring a variety of colors. The dynamic positioning and coloring enhance the visual aesthetics of the game.
3. **Scoreboard:**
   An updated scoreboard reflects the ongoing scores of both players, showcasing the progression as coins are successfully collected.
4. **Game Environment:**
   The console draws an initial ground, providing a backdrop for player movement and coin collection.

Game Procedure:

1. **Player Function:**
   Draws two player characters at predefined coordinates (x, y) with distinct attributes, setting the stage for the gaming experience.
2. **Create Coin Function:**
   Generates random coordinates (x, y) for a coin, introducing an element of unpredictability and challenge.
3. **Draw Coin Function:**
   Renders a coin at random coordinates with dynamic positioning and color, enhancing the visual appeal and engagement.
4. **Updated Score Function:**
   Dynamically updates the score when players successfully collect coins, ensuring real-time feedback on player performance.
5. **Specific Keys A Lot Function:**
   Specifies keyboard keys for both players, controlling movements in the left, right, up, and down directions, enhancing player control and strategy.
6. **Console Function:**
   Draws the initial ground and players, initiates a game loop, managing player movement, collision detection with coins, and real-time score updates.
7. **Game Over Handling Function:**
   Determines game-over scenarios when players collide with borders or each other, leading to an elegant exit from the game.

Winner and Score:

After exit or game over, final score displays and declares the winner.