C Project

Simple Car Animation

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Programming Fundamentals

Finals

Project

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About:

This project presents a development of Simple Car Animation in the C programming language. This project presents the Graphical representation of the program output. The program utilizes fundamental C language constructs, such as variables, function to create a user-friendly interface for inputting and displaying results. In which also use Loops to make continuous animation.

Concepts Used:

The following concepts used in this program are:

* Header Files:

You must assign the following Header Files to run this program:

#include<stdio.h>

#include<conio.h>

#include<graphics.h>

#include<dos.h>

#include<stdlib.h>

* For Loop:

For loop is a programming language conditional iterative statement which is used to check for certain conditions and then repeatedly execute a block of code if those conditions are met.

Syntax:

**For (initialization; condition; increment/decrement)**

**{**

**Statements;**

**}**

* If Else Statement:

An **if else** statement in [programming](https://www.computerhope.com/jargon/p/programming.htm) is a [conditional statement](https://www.computerhope.com/jargon/c/contstat.htm) that runs a different set of statements depending on whether an expression is true or false. If the given condition is true the given statement is run, when condition is false the statement is terminated.

Syntax:

**if(expression) {**

**//code to be executed if condition is true.**

**} else {**

**//code to be executed if condition is false.**

**}**

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Graphics in C:

 C Programming. Graphics programming in C used to drawing various geometrical shapes (rectangle, circle eclipse etc), use of mathematical function in drawing curves, coloring an object with different colors and patterns and simple animation programs like jumping ball and moving cars.

**Explanation of Code:**

The first step in any graphics program is to include graphics.h header file. The graphics.h header file provides access to a simple graphics library that makes it possible to draw lines, rectangles, ovals, arcs, polygons, images, and strings on a graphical window.

The second step is initializing the graphics drivers on the computer using initgraph method of graphics.h library.

**Syntax:**

**void initgraph (int \*graphicsDriver, int \*graphicsMode, char \*driverDirectoryPath);**

**……………………………………………………….**

Explain Parts of Program:

A blue screen with text and symbols

Description automatically generated

In this part of the program different libraries files declare and initialization occurs.

A computer screen shot of a code

Description automatically generated

In this part of program use the For loop to create the body of car.

A white line drawing of a car

Description automatically generated

The body of car looks like the above showing.

A screenshot of a computer program

Description automatically generated

In this part of program use If else statement to make the animation of Road. The road is line generated when car moves.

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How program Works:

**Car Controls:**

The Car is control by the W, A, S, D, keys.

**Note:**

The program is run only in “Turbo C++”. When using other compilers you must include or installed.

Graphics file in this compiler. Otherwise, the program will not run.

**Step to run this program in Turbo C++:**

First install Turbo C++ on your computer. After installing, copy the code file “CAR1” and go to the destination of installed folder of TurboC++. Open the folder and search the “BIN” folder. Now paste this “CAR1” code file in BIN folder.

After complete this process now open the TurboC++ and select file option the popup drop down select the open option. Now select the CAR.CPP to open this source code now you run this program.

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