**UNIVERSITY OF NAIROBI**

**SCHOOL: COMPUTING AND INFORMATICS**

**COURSE: BSc. COMPUTER SCIENCE**

**UNIT: CSC215**

**LECTURER: DR. OPIYO**

**GROUP MEMBERS**

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**ASSIGNMENT:**

**Question 12:**

Write a program using knowledge based approach that assists a C-programmer in automatically generating some code. You may use a cased based approach.

**LOGICAL DESIGN AND FLOW OF AN EXPERT SYSTEM**

**INFERENCE ENGINE**

(Interprets user requests and gives solution)

**KNOWLEDGE BASE**

(Contains the facts and the rules. Holds solutions to any topics in C programming. Used to provide the solutions to the user problems

**INTERFACE**

Interacts with the user. Queries the user on the section of C programming that they want to aid in.

User

**User makes a choice on what he needs the program to do. What the problem that needs solution is**

**RECOMMENDED ACTION**

In this case, it is the recommended solution

**C PROGRAMMING ALGORITHM**

An algorithm of a case based smart system assists a C-programmer in automatically generating some code.

The program uses a case based intelligent approach.

First Refinement

Declare the variables

Prompts user to select a given C programming topic that they want aid in

Provides an explanation and an example code on how to solve the problem

Second Refinement

Declare variable choice, to be selected by user

Gets the current location of the visitor

Uses a case approach to enable the user to select a given C programming topic

Switch the topic selected

Prints code examples on the given topic as selected by the use, to aid in programming

**RUNNING THE PROGRAM**

The main purpose of this intelligent program is to help C programmers to generate codes on given topics. C++ programming language was used to develop this program, hence it can run on any given Operating System.

First, the system prompts the user to enter their choice topic that is the topic that they want help in, for example Files in C programming. This is done through the provision of a case based choice menu, from where the user can select from.

After that, the program displays aiding instructions and a code on the given topic, as requested by the user.

By the use of the resulting information, most importantly the sample code, the user gains knowledge on the C programming topic that they had a problem working with.