Arab International University

Faculty of Informatics and Communication Engineering

Expert Systems Project Report on

Software projects consultant

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Submitted by

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Abstract

The project aims at suggest IDEs, frameworks, programing languages, libraries to build a software, It has a group of questions about software type, platform and experience that allows the user to know how to start development.

In return, the software automatically suggests the answer based on previous experience from engineers, doctors and internet references, allowing the user to save time on searching and giving him automated results to know his first steps.

Contents

Chapter 1: Introduction 1
1.1 Background 1
Chapter 2: Data acquisition 1
2.1 Knowledge Gathering: 1
2.2 Questions types: 1
2.3 Asked questions: 2
Chapter 3: System Analysis 3
3.1 Logical order of questions: 3
3.2 Block diagram: 3
3.3 Flowchart: 3
3.4 Decision tree samples: 4
3.4.1 Windows: 4
3.4.2 Android: 4
3.4.3 Web: 5
3.4.4 Video game: 5
Chapter 4: Implementation & Results 6
4.1 Implementation: 6
4.2 Results: 6
4.2.1 Windows: 6
4.2.2 Android: 6
4.2.3 Web: 7
4.2.4 Video game: 7
Conclusion and Future Works 7
Difficulties 8
References 8

Abbreviations

AIU	Arab International University
EXP	Expert Systems
GUI	Graphic user interface
OS	Operating system

Keywords

Knowledge base

Inference engine

Working memory

Chapter 1: Introduction

1.1 Background

Software Project Consultant is an expert system that will help junior developers and students to choose the best frameworks beside the best environment and libraries to use them based on simple questions that will help to have a good look about the project and the developer experience.

Worldwide, there are a lot of developers looking out for advices for working on their projects, and lots of amazing ideas has failed because of bad tools framework and environment choices.

Chapter 2: Data acquisition

2.1 Knowledge Gathering:

This Expert System gathered knowledge from different kind of resources such as articles , websites and engineers. In general the knowledge base was gathered and organized in a way that can help the system be as comprehensive as possible with that huge number of bifurcations.

2.2 Questions types:

Yes/No questions

This kind of questions have a function called ask-yes-or-no questions , it makes sure that the user only chooses to enter either yes or no only , otherwise it will loop asking the same question over and over again

2.3 Asked questions:

for work-space experts

-As a developer what is your most faces problem?

-Have you made a game, website, web, android or windows application?

-Have you faced any problems?

- What is the most thing that you like in your software product?

-What is the most update feature that you think is important to be made in software product after few years from launching it?

for IT-doctors

-Is it hard to insert AI codes in specific frameworks?

-What is the most faced problem for the last bunch of projects that you have seen?

-What do you think is the most important feature that most of the developers miss?

for work-leaders

-What do you think is the most important feature in now adays projects?

-What is the most update feature that you made in your software product after few years from launching it?

-what is your most faced problem?

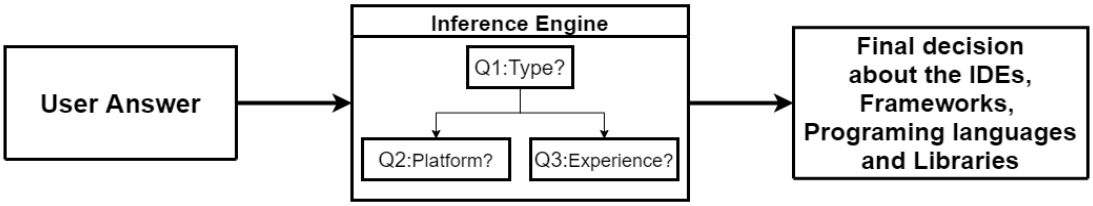
Chapter 3: System Analysis

3.1 Logical order of questions:

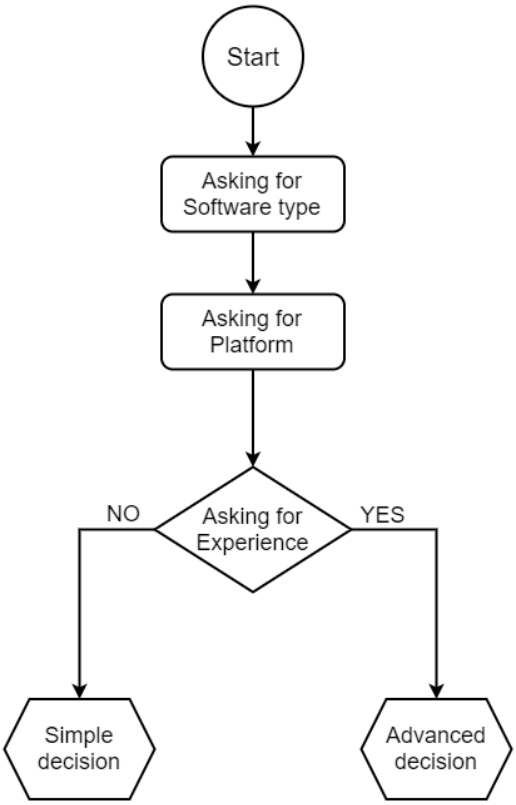
Software projects consultant simulates how the expert can take the right way that can help the user to choose the appropriate decision.

After the preparation of the questions, arranging the questions was depending on making the questions going from the most general down to most specific, generalize the first questions can help the system to ignore the excluded cases.

3.2 Block diagram:

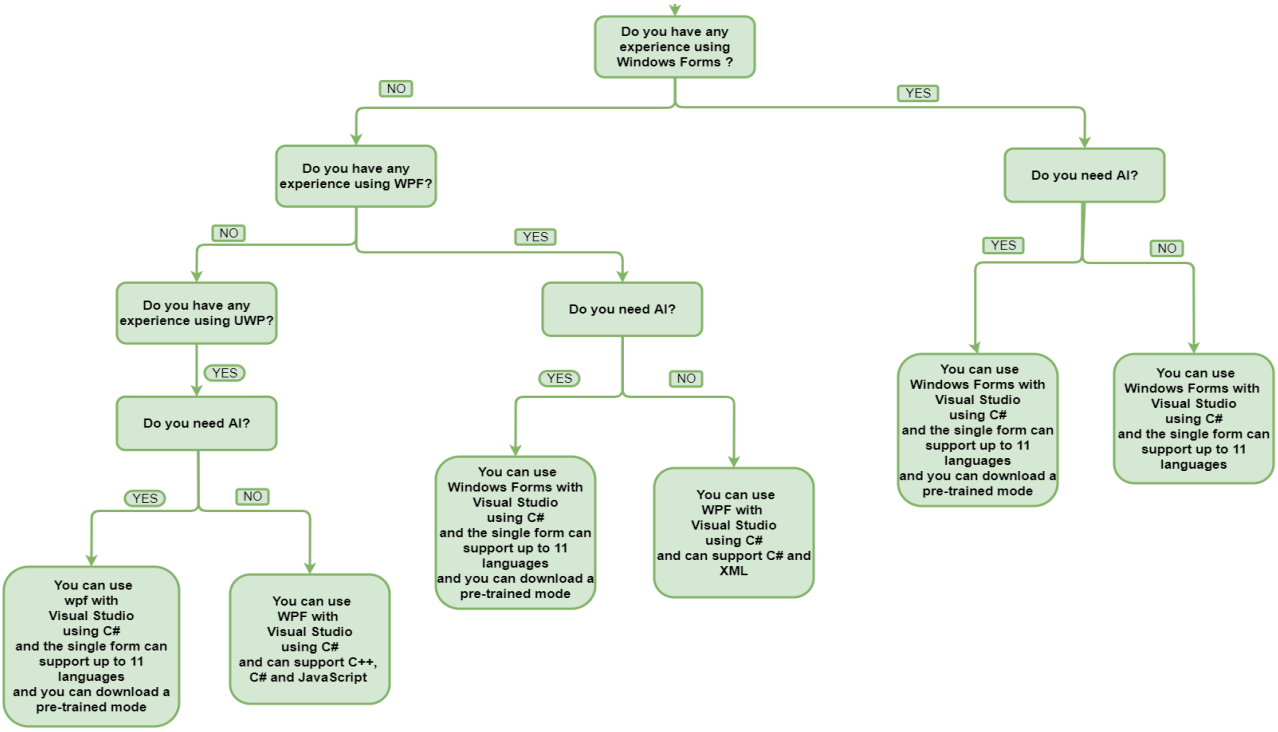


3.3 Flowchart:

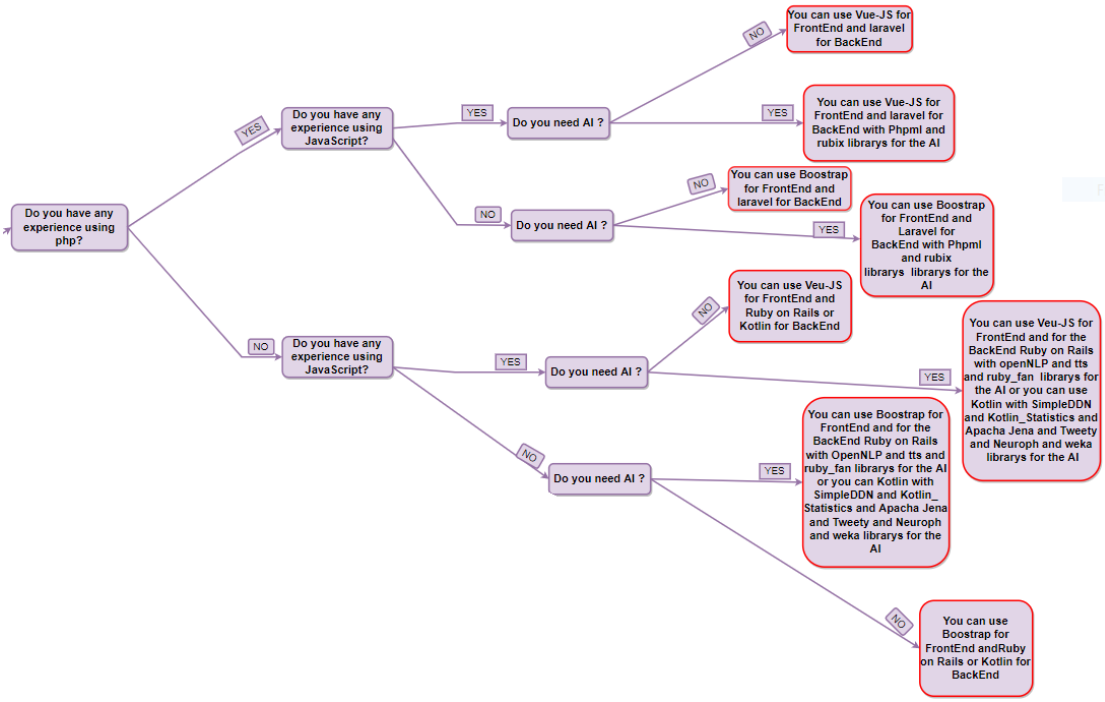


3.4 Decision tree samples:

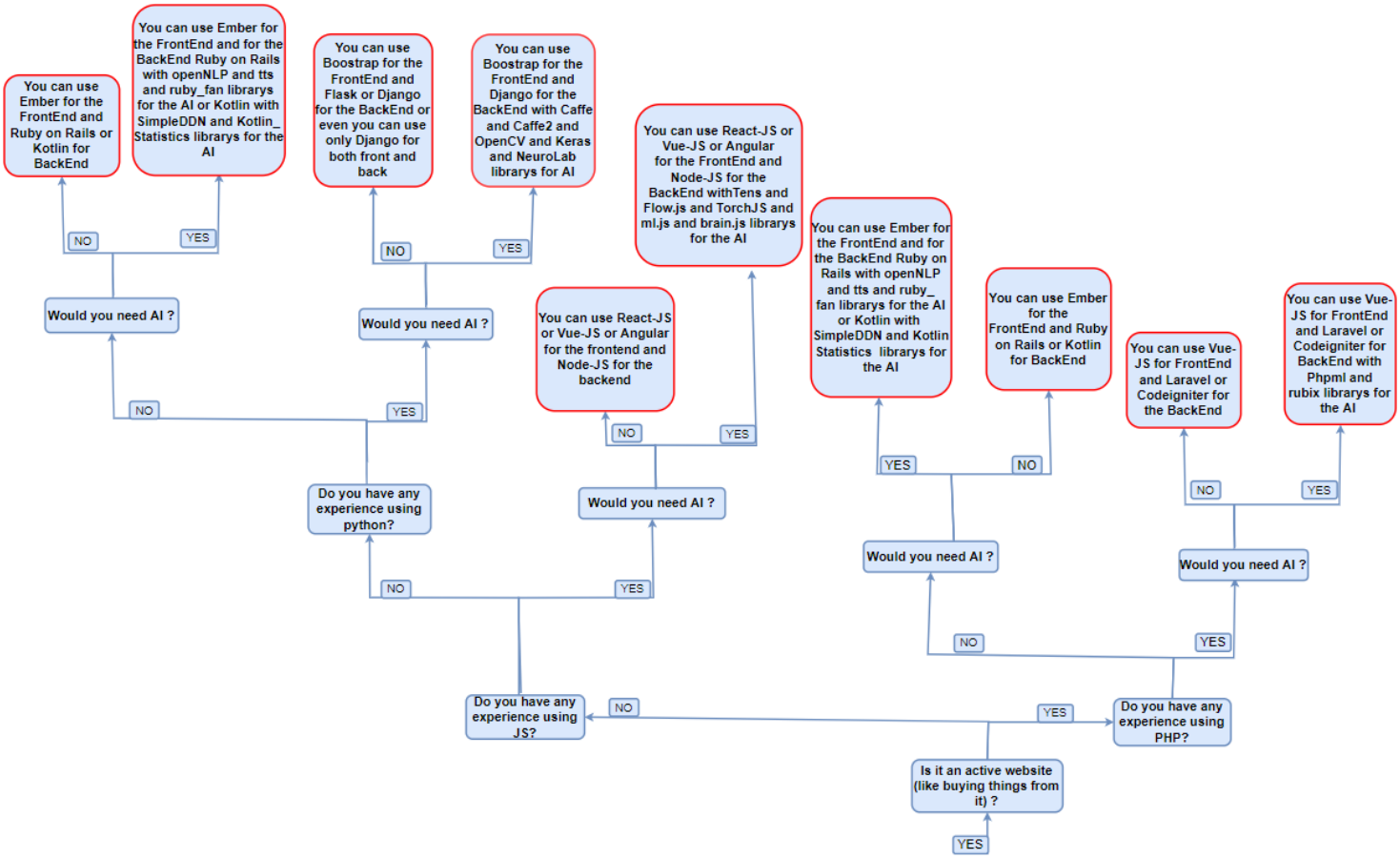
3.4.1 Windows:



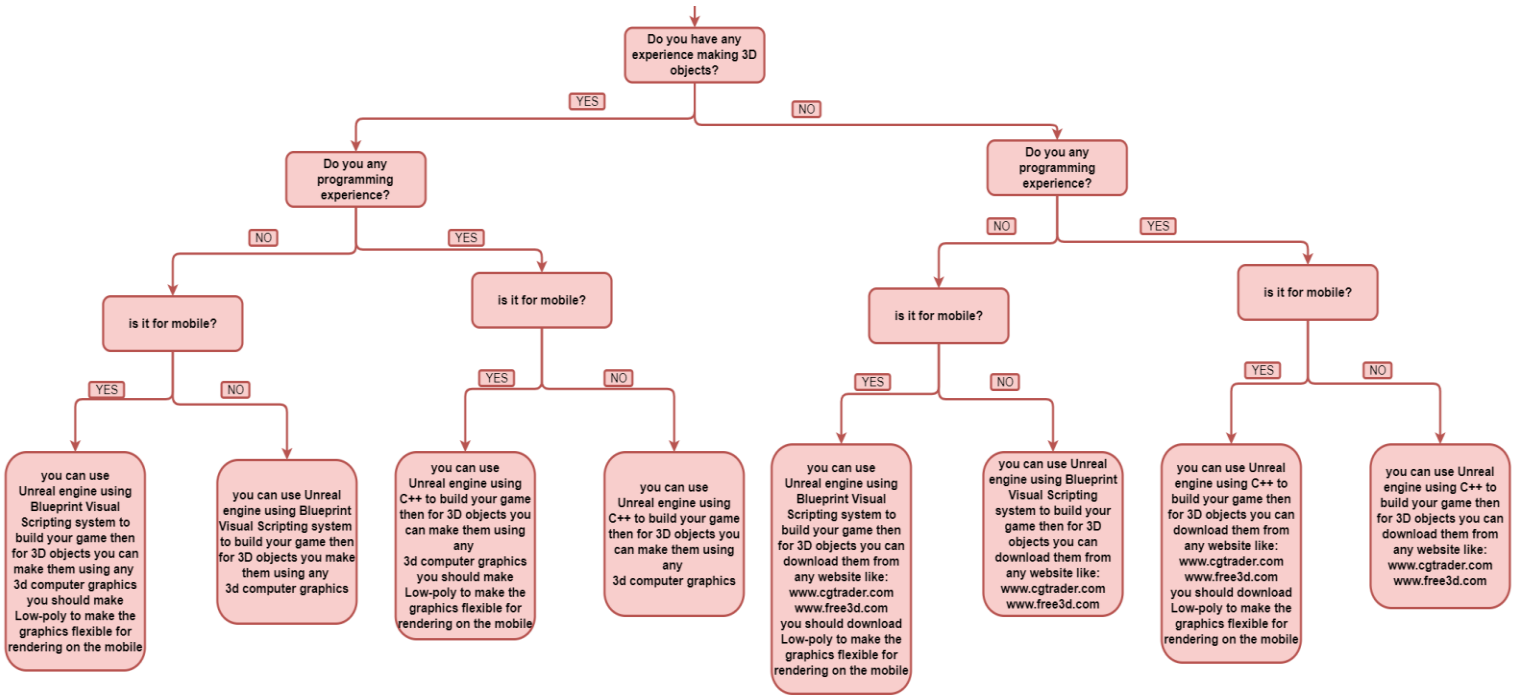
3.4.2 Android:



3.4.3 Web:



3.4.4 Video game:



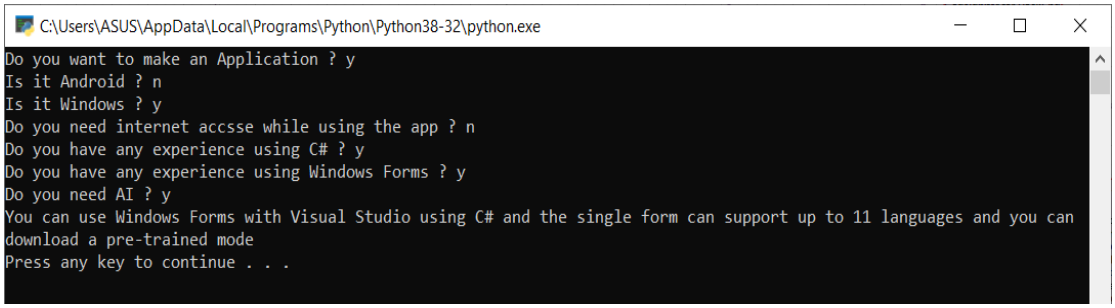
Chapter 4: Implementation & Results

4.1 Implementation:

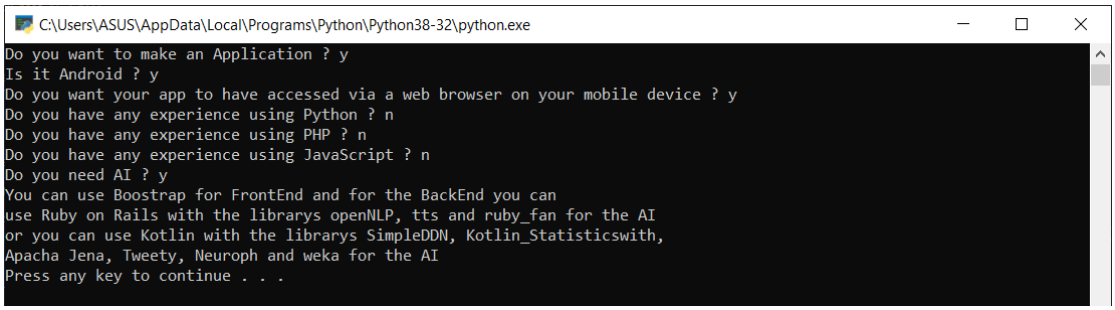
The actual code was implemented through Python using Experta library that can function the system processes from user-given facts and the flow of events inside the system leading to the correct decision.

4.2 Results:

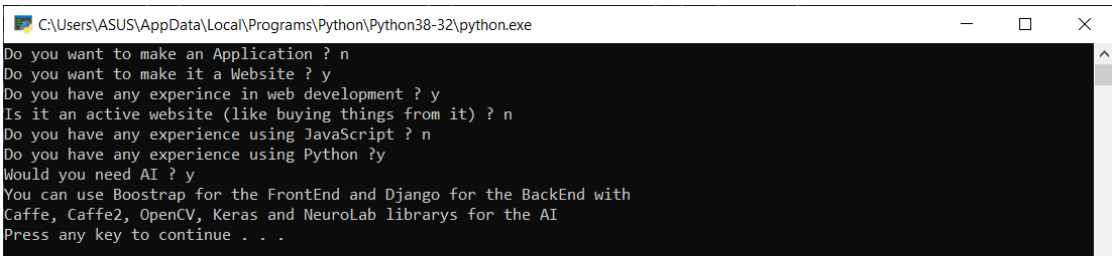
4.2.1 Windows:



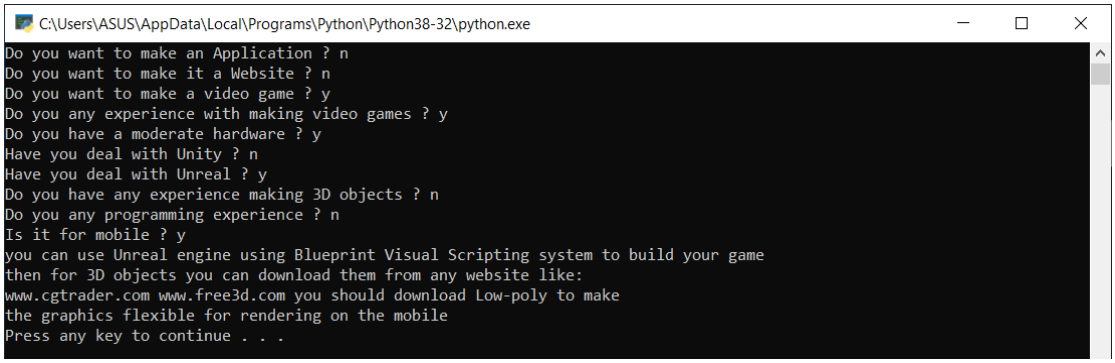
4.2.2 Android:



4.2.3 Web:



4.2.4 Video game:



Conclusion and Future Works

Software projects consultant developed in a flexible way that accept any new rules or changed rules, that help giving the system more information to grow with that large number of frameworks and IDEs.

Difficulties

Each expert prefers to work in different ways on even its not the best, also lack of face-to-face experts and lack of communicating online ones can be an obstacle.

Big searching process to build good knowledge form software vast field.

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References

Online Resources:

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https://martech.org/100-questions-you-must-ask-when-developing-web-site/

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