

AIRLINERS EXPERT SYSTEM

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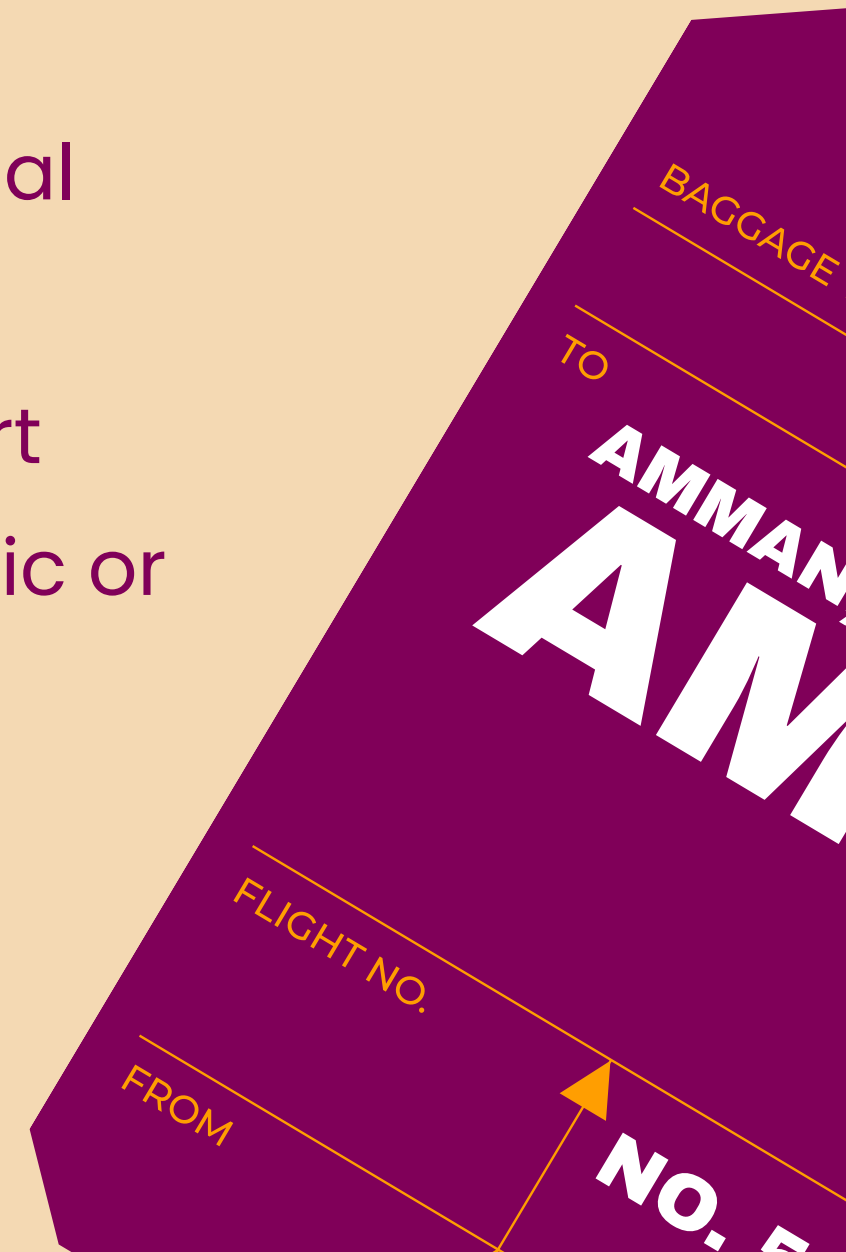
PRESENTATION OUTLINE

- 📍 What is an Expert System
- 📍 Types of expert system
- 📍 How does expert system work
- 📍 Airline expert system
- 📍 Advantages of the airline system
- 📍 Code Implementation



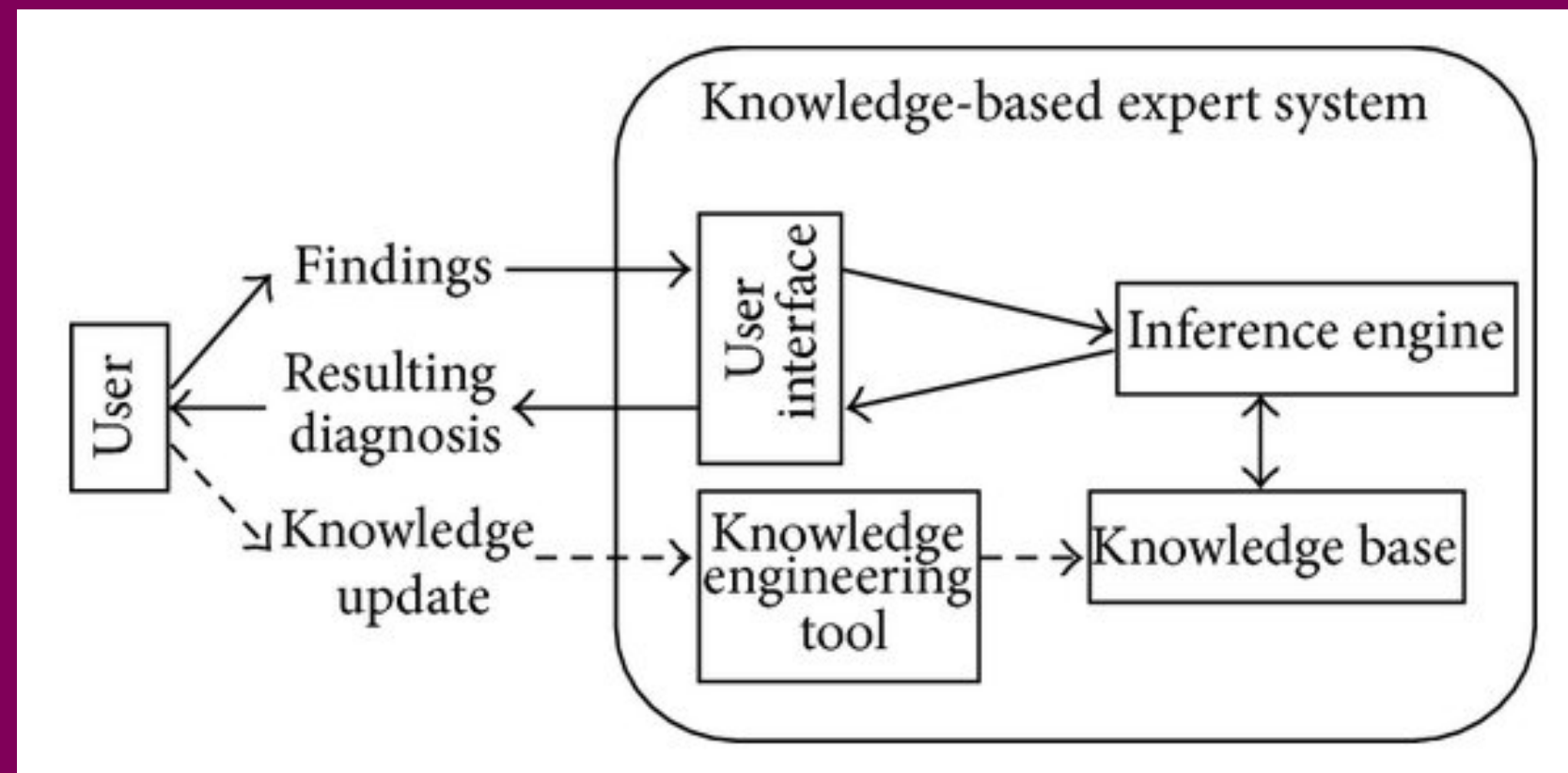
WHAT IS AN EXPERT SYSTEM

- is a computer system emulating the decision-making ability of a human expert
- It is mainly developed using artificial intelligence concepts, tools and technologies, and possesses expert knowledge in a particular field, topic or skill.



TYPES OF EXPERT SYSTEM

- expert system is divided into two sub-system:
inference engine and the knowledge base





KNOWLEDGE-BASED EXPERT SYSTEM

This knowledge-based expert system enables the system to be frequently added with new knowledge and adapt accordingly to meet new requirements from the ever-changing and unpredictable environment.

HOW DOES AN EXPERT SYSTEM WORK

- It performs this by extracting knowledge from its knowledge base using the reasoning and inference rules according to the user queries.





AIRLINE EXPERT SYSTEM

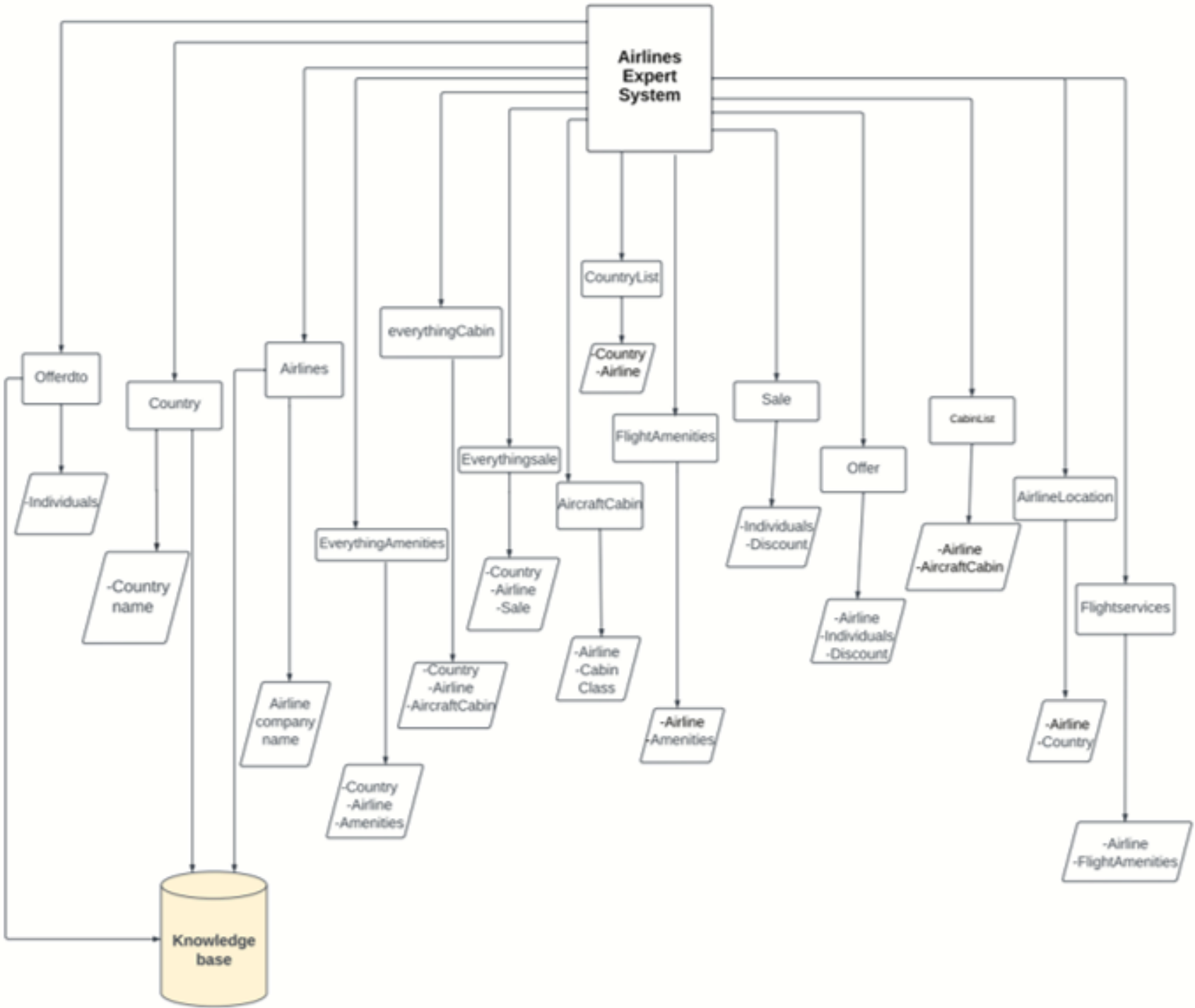
The objective of the expert system in our project is to offer the customer the most appropriate and available airlines based on their preferred services, seats, and discounts. Furthermore, the system helps customers to choose the most suitable airline, and view lists of countries, airline companies, and discounts on each.

ADVANTAGES OF THE AIRLINE SYSTEM

Earlier, people used to check in with each company separately. Our system collects data from each company in the middle east area. So, it's easy for customers to find a flight to reserve anywhere and anytime.



FLOWCHART





FNL DSTN

SYD
SYDNEY, AUSTRALIA

FLT	PCS
	WGT

B-532-678

CODE IMPLEMENTATION

For implementation, we used Prolog language and Swish for the software. Prolog is a logic programming language associated with artificial intelligence and Swish is an implementation of the programming language Prolog.



SAMPLE OF THE RUN TIME

country(COUNTRY).

COUNTRY = saudiArabia

COUNTRY = emirate

COUNTRY = qatar

COUNTRY = bahrain

COUNTRY = jordan

COUNTRY = egypt

COUNTRY = kuwait

?- country(COUNTRY).

airline(CompaniesNames).

CompaniesNames = flyNas

CompaniesNames = adele

CompaniesNames = saudiaAirline

CompaniesNames = flydubai

CompaniesNames = emirates

CompaniesNames = etihadAirways

CompaniesNames = qatarAirline

CompaniesNames = kuwaitAirways

CompaniesNames = gulfAir

CompaniesNames = royalJordanian

CompaniesNames = airCairo

?- airline(CompaniesNames).

flightAmenities(COMPANY,AMENTITIES).

AMENTITIES = availableWifi,

COMPANY = flyNas

AMENTITIES = setbackScreen,

COMPANY = flyNas

AMENTITIES = aPrayerArea,

COMPANY = flyNas

AMENTITIES = availableWifi,

COMPANY = adele

AMENTITIES = aPrayerArea,

COMPANY = adele

AMENTITIES = availableWifi,

COMPANY = saudiaAirline

AMENTITIES = setbackScreen,

COMPANY = saudiaAirline

?- flightAmenities(COMPANY,AMENTITIES).



RESOURCE PAGE

PA

CPH

PACIFIC AIRLINES

COPENHAGEN DENMARK

NO. 23-45-67

GLOBAL TRAVELS

BOM

NO. 23-45-67

PRINTED IN U.K.

JKT

BAGGAGE

(STRAP) TAG

BARCELONA, SPAIN

BAGGAGE

STRAP TAG

PCS.

WT.

AIR TRAVEL EXPRESS

PRG

CZECH REPUBLIC

78-90-42

FINAL DESTINATION

HKG

HONG KONG, CHINA

A 425-399

FINAL DESTINATION

HONG KONG, CHINA

A 425-399

FLIGHT

TRANSFER

AC-87-93-27

NA

378-789

ORIGIN

A

SORTING SYMBOL

A

94-37-46

BAGGAGE TAG

NAM

HANOI, VIETNAM

HAN

94-37-46

ATLANTIC AIRWAYS

BRAZIL

14-72-09

REFRENNES:

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- “EXPERT SYSTEMS,” GEEKSFORGEEKS, 09-NOV-2021. [ONLINE]. AVAILABLE: [HTTPS://WWW.GEEKSFORGEEKS.ORG/EXPERT-SYSTEMS/](https://www.geeksforgeeks.org/expert-systems/)
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- M. S. QURESHI, “LAB-11: EXPERT SYSTEM (HOTELINFORMATIONSYSTEM).”



**THANK YOU
FOR LISTENING!**

Don't hesitate to ask any questions!