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Programming Group Project: «Akinator»

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Project description

We made a game, where the user can play “Who am I?”. To play, the computer choses a famous person randomly from an Excel-Sheet we’ve prepared previously (Excel_Liste_buchstaben.xlsx). In that file we have 51 different people and several questions that have been answered about them. Every round, the user starts with a score of 50 points. If the user runs out of points, he loses. The goal of the game is to guess the right person and get as many points as possible.

The user can ask several questions during the game. We’ve prepared a file with possible questions, that the computer is able to answer. To simplify, we assigned every question a letter (a, b, aa, bb, etc.) so the user doesn’t have to type in the whole question. The computer can only respond with “yes” or “no”. If the answer was correct, the user can ask another question etc. If the answer was wrong, the user loses 5 points. He can still ask more questions if he has a score > 5 points. If the user thinks he/she knows the name of the person, the user can also enter the person’s name. If it’s correct he/she wins the game. If the name was incorrect, he/she loses 10 points and can ask more questions.

How the program works

To use the program, one has to import openpyxl and panda. With openpyxl and panda the program can read the excel-file. Furthermore, the file (Excel_Liste_buchstaben.xlsx) needs to be “connected” to the program. The possible questions to ask are in the columns heading and the possible names are the columns index. Every question can either be answered with “yes”, “no” or “not defined”. The program then randomly imports one name from the excel-file and stores it. This name is the one the user has to guess. The user’s score is set to 50 for every new round. Now the program goes through a loop.

Loop and if/else-condition

If the user’s question is not in the heading of the excel-list

When the user’s question is not in the heading of our excel-list that can mean two things:

1. The user’s input is a name.
 - a. If it is the correct name, the user wins.
 - b. If it isn’t the correct name, the user loses 10 points and can ask more questions to find out more about the person he has to guess. In that case the program can recognize that the input was more than five characters long and since no question is more than four characters, it has to be a name.
2. The user asked a question that can’t be answered because it’s not in the list.
 - a. In that case the program can’t answer the question, so the user has to ask another question. The user loses no points.

If the user’s question is in the heading of the excel-list

When the user’s question is in the heading of the excel-list there are three different options:

1. The program answers with “yes”.
 - a. In this case, the user’s question is correct, and he/she can ask more questions to find out who he/she could be.
2. The program answers with “no”.
 - a. If the user’s question is answered with no, the score decreases by 5 points, and he/she can ask another question
3. The program can’t answer the question

- a. Since the question isn't defined in the excel-file, the program can't answer it. The user can ask another question and loses no points.

Play again?

Whenever the user has either guessed the right person or lost too many points (Game over), the program asks, if the user wants to play again. Again, there are two different outcomes here:

1. The user answers with "no".
 - a. He/she doesn't want to play again. The game ends here.
2. The user answers with "yes".
 - a. The game starts all over. The program picks a new person randomly from the excel-list and the score is set to 50 again. The game starts from the beginning.

Game over

Every time the user loses 50 or more points the game is over, and the user loses the game. The program then asks, if he/she wants to play again.

Additional files needed

Types of Questions

a	Am I a man?	rr	Did I sing the song "Toxic"?
b	Am I a woman?	ss	Am I a politician?
c	Am I real person?	tt	Did I date one of the Jonas Brother's?
d	Am I an imaginary person?	uu	Do I write a lot of break-up songs?
e	Am I dead?	vv	Am I politically left-oriented?
f	Am I alive?	ww	Am I politically right-oriented?
g	Am I younger than 20?	xx	Am I an athlete?
h	Am I between 20 and 39?	yy	Am I a skier?
i	Am I between 40 and 59?	zz	Am I a tennis-player?
j	Am I between 60 and 80?	aaa	Am I a golfer?
k	Am I older than 80?	bbb	Am I a soccer-player?
l	Do I know myself personally?	ccc	Am I an actor?
m	Am I originally from Germany?	ddd	Did I play in "The Devil Wears Prada"?
n	Am I originally from Switzerland?	eee	Did I succeed an impossible mission?
o	Am I originally from Austria?	fff	Am I a pirate?
p	Am I originally from Italy?	ggg	Was I married to Angelina Jolie?
q	Am I originally from Spain?	hhh	Did I play in "The Goodfather"?
r	Am I originally from China?	iii	Did I play in "Head full of honey"?
s	Am I originally from Russia?	jjj	Did I win an Oscar?
t	Am I originally from Sweden?	kkk	Am I a character of a children's show?
u	Am I originally from Poland?	lll	Am I a princess?
v	Am I originally from Croatia?	mmm	Am I an animal?
w	Am I originally from the US?	nnn	Do I have extremely long hair?
x	Am I originally from France?	ooo	Do I have a mean stepmother?
y	Am I originally from Egypt?	ppp	Did I meet seven dwarves?
z	Am I originally from Canada?	qqq	Did I get poisoned by a witch?
aa	Am I originally from the UK?	rrr	Did I get eaten by a wolf?
bb	Am I originally from Portugal?	sss	Am I yellow?
cc	Have I recently caused a problem?	ttt	Am I blue?
dd	Am I a singer?	uuu	Am I green?
ee	Was I most famous in the 50's?	vvv	Is my favorite color pink?
ff	Was I most famous in the 60's?	www	Am I a fish?
gg	Was I most famous in the 70's?	xxx	Am I a bee?
hh	Was I most famous in the 80's?	yyy	Am I a lion?
ii	Was I most famous in the 90's?	zzz	Do I have a superpower?
jj	Was I most famous in the 00's?	aaaa	Am I super strong?
kk	Was I most famous in the 2010's?	bbbb	Was I saved by a prince?
ll	Do I sing "Schlager"?	cccc	Am I a painter?
mm	Am I rapper?	dddd	Am I a surrealist painter?
nn	Am I a popstar?	eeee	Am I an expressionist painter?
oo	Am I a jazz singer?	ffff	Am I a renaissance painter?
pp	Am I a rockstar?		
qq	Did I win many Grammy Awards?		

