KJC4 4 CREDITS

NARRATIVE FOR HOMEWORK 6

D1

1. Simple way decision

I view this as a decision with no alternative routes if the condition is not met like if soup is available ,buy soup.

In python simple decisions are implemented using the if statement. This mean that if a certain condition in the if heading is evaluated to be true, the statements under that if body are executed, if the condition is evaluated to be false, the statements in the if body are skipped and control transfers to the next statement in the program.

1. Two way decision

I view this as a decision with an alternative route that can be taken if the condition is not met such as if soup is available, buy soup . if soup is not available, buy rice.

In Python two way decisions are implemented using the if -else clause. If the condition in the if heading is evaluated to be true, the statements in the if body are executed but if the condition is evaluated to be false, the statements in the else clause are executed. In either case, control then passes to the statements in the program after the if-else clause.

1. Multi way decision

I view this as a decision with several alternative routes that can be taken if the condition is not met such as if there is soup, buy soup. If soup is not available but rice is available, buy rice. If soup is not available, rice is not available, buy fish.

In Python ,multiway decisions are executed using the if-elif-else statement. If the condition in the if heading is evaluated to be true, the statements in the if body are executed and if its false, control is passed to the elif clause. If the elif condition is true, the body of statements under it are executed and if the elif condition is false, control is transferred to the else clause(optional else clause) which holds the default statements to be executed if both the if and elif conditions are evaluated to be false.

D3

How is exception handling using try/except similar to and different from handling exceptional cases using ordinary decision structures(variations on if)?

Try..except is similar to the ordinary decisions structures such as the if-elif- else statement in the sense that the except clauses bear similarity to the elif clauses and the last bare except clause is similar to the else clause(both being the default statements to be executed if all other conditions are evaluated to be false). The if-elif-else clause like the try…except clause work together to simulate several possible paths/alternatives for a program giving statements to be executed depending on whether a condition is evaluated to true or false.

A difference in both methods is in using the ordinary decision structures, if all of the conditions are evaluated to be false, control simply passes to the next statement in the program outside of the decision structure but in exception handling using the try...except clause , if it fails (meaning none of the except clauses match the error), the program crashes.

PE1

I asked the user to input the hourly rate and the number of hours worked for the week. I stored the inputs in 2 variables, hourly\_rate and no\_of\_hours. I created an if-else statement with the condition , if no\_of\_hours > 40, calculate overtime\_hours by doing no\_of\_hours - 40. I then got the overtime\_hourly\_rate by doing hourly\_rate x 1.5. I calculated the overtime\_wages by doing overtime\_hours x overtime\_hourly\_rate. I obtained total\_wages by multiplying hourly\_rate by 40 and adding it to overtime\_wages and printed total\_wages.

The else condition calculates total\_wages by multiplying no\_of\_hours by hourly\_rate and then prints total\_wages.

4CR

I read the Dracula file in using read() and stored it in a variable “dracula”. I then used index(“CONTENTS”) to designate the beginning of the text I wanted to slice and stored it in a variable “beg” and I used index(“\nDRACULA”) to designate the end of the text I wanted to slice and stored it in a variable “end”. I then sliced out the required text and stored it in variable ”table\_of\_contents”. I split table\_of\_contents using split(“\n”) and stored the list in variable “mylist”. I then used a for loop to loop through each element in mylist and an if statement inside the for loop to find elements of mylist that did not start with “CHAPTER” and that were not empty strings. I then printed out those elements , and closed the file.