Assignment 1: Preparation of Checklist

1. **Prepare checklist for calculate Simple Interest.**
   UI Design:

Check List:
- Any Element of an Input set is Negative
- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are Less than three input
- There are More than three input
- Combination of above rules
- Textbox must be editable
- Button must be clickable
- Result must be visible in output

Assumptions:
1. Order of input is important, First Input Must be a Principal Amount, Second Input Must be Rate of interest, and Third Input Must be a Year.
2. Interval is taken as number of years.

List	Checklist	Input (P,R,N)	Expected Output
1.	Any Element Of an Input set is Negative	(-1500,2,5), (1500,-1,1), (1600,1,-4)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A,2,5),(1500,B,1), (1600,1,A)	Error Message: Alphabets Not Allowed

3.	Any Element Of an Input set is Special Symbol	(!,5,5), (1500,#,1), (1600,15,&)	Error Message : Special Symbol Not Allowed
4.	Any Element Of an Input set is Zero	(0,25,5), (1500,0,1), (1600,15,0)	Error Message : zero Not Allowed
5.	There are Less than three input	(1500,25)	Error Message : less than three Not Allowed
6.	There are More than three input	(1500,25,5,10)	Error Message : More than three input Not Allowed
7.	First Input Must Principle Amount, Second Input Must Rate Of Interest, Third Input Must Number Of Years	(2,25000,5)	Error Message : Invalid input
8.	Combination of rules	(-1500,25,*)	Error Message
9.	Correct input of P,R,N	(1500,10,5)	750

2. **Prepare checklist for accept a number and check whether number is Odd or Even.**
   UI Design:

Check List:

- Any Element of an Input set is Negative
- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- There are Less than one input
- There are More than one input
- Textbox must be editable
- Button must be clickable
- Result must be visible in output

List	Checklist	Input (N)	Expected Output
1.	Any Element Of an Input set is Negative	(-150)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A)	Error Message: Alphabets Not Allowed
3.	Any Element Of an Input set is Special Symbol	(!,&)	Error Message : Special Symbol Not Allowed
4.	There are Less than one input	()	Error Message : less than one Not Allowed
5.	There are More than one input	(1500,25,5,10)	Error Message : More than three input Not Allowed
6.	Correct input of N	(2)	No is even

3. **Prepare checklist for accept three numbers and find maximum and minimum numbers.**
   UI Design:

Check List:
  · Any Element of an Input set is Alphabetic
  · Any Element of an Input set is Special Symbol
  · There are Less than three input
  · There are More than three input
  · Textbox must be editable
  · Button must be clickable
  · Result must be visible in output

List	Checklist	Input (n1,n2,n3)	Expected Output
1.	Any Element Of an Input set is Alphabetic	(A,2,5),(1500,B,1), (1600,1,A)	Error Message: Alphabets Not Allowed
2.	Any Element Of an Input set is Special Symbol	(!,5,5),(1500,#,1), (1600,15,&)	Error Message : Special Symbol Not Allowed
3.	There are Less than three input	(500,25)	Error Message : less than three Not Allowed
4.	There are More than three input	(1500,25,5,-10)	Error Message : More than three input Not Allowed
5.	Correct input of n1, n2, n3	(0,1,3)	Min: 0, and Max: 3

4. **Prepare checklist for a calculator that input two operands and one operator and perform the following operations ADD, SUBTRACT, MULTIPLY AND DIVIDE.**

Ui Design:

Check List:
· Any Element of an Input set is Alphabetic
· Any Element of an Input set is Special Symbol
· There are Less than two input
· There are More than two input
· Textbox must be editable
· Buttons must be clickable
· Result must be visible in output

General for Addition, Subtraction, Multiplication and divison

List	Checklist	Input (n1,n2)	Expected Output
1.	Any Element Of an Input set is Alphabetic	(A,2),(1500,B)	Error Message: Alphabets Not Allowed
2.	Any Element Of an Input set is Special Symbol	(!,5), (1500,#)	Error Message : Special Symbol Not Allowed
3.	There are Less than two input	(1500)	Error Message : less than two Not Allowed
4.	There are More than two input	(1500,25,5,10)	Error Message : More than two input Not Allowed
5.	Combination of rules	(-1500,25,*)	Error Message
6.	Correct input of addition n1, n2, + Correct input of subtraction n1, n2, - Correct input of multiplication n1, n2, * Correct input of division n1, n2, /	(100,10,+) (-100,10,-) (100,10,*) (100,10,/)`	110 -90 1000 10

For division:

List	Checklist	Input (n1,n2)	Expected Output
1.	Second element if 0	(1,0)	Error Message: Second number cannot be zero

5. **Prepare checklist for accept marks of 5 subjects (out of 100), calculate total, percentage and Class of a student based on the following criteria.**

Percentage	Grade
a. Above or Equal to 70	A
b. Between 69 and 60	B
c. Between 59 and 50	C
d. Below 50	D
e. Below 35	F

Ui Design:

Check List:
- Any Element of an Input set is Negative
- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are Less than five input
- There are More than five input
- Combination of above rules
- Textbox must be editable
- Button must be clickable
- Result must be visible in output

Assumptions:
1. Order of input is important, First Input Must be a subject1 , Second Input Must be subject2, Third Input Must be subject3, fourth Input Must be subject4, Fifth Input Must be subject5 .
2. Input must not be greater than 100.

List	Checklist	Input (s1,s2,s3,s4,s5)	Expected Output
1.	Any Element Of an Input set is Negative	(-25,2,5,25,0),(30,-1,1,12,-8)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A,2,5,R,3),(35,B,1,S,2)	Error Message: Alphabets Not Allowed
3.	Any Element Of an Input set is Special Symbol	(!,5,5,$,5),(32,#,1,%,2),	Error Message : Special Symbol Not Allowed
4.	Any Element Of an Input set is Zero	(0,25,5,25,0), (30,0,1,25,0)	Error Message : zero Not Allowed
5.	There are Less than five input	(30,25)	Error Message : less than five Not Allowed
6.	There are More than five input	(40,25,5,10,25,0)	Error Message : More than five input Not Allowed
7.	First Input Must be subject1marks , subject2marks, subject3marks, subject4marks, subject5marks	(2,50,5,35,40)	Error Message : Invalid input
8.	Combination of rules	(-50,25,*)	Error Message
9.	Correct input of s1,s2,s3,s4,s5	(50,30,55,60,80)	Total: 275 marks Percentage: 55 Grade: C

6. **Prepare checklist for a program that read a number between 1 to 7 (including both) and then print corresponding day name from the week.**

   For example, if entered number is 1, then print "Today is Monday", if entered number is 2, then print "Today is Tuesday", and so on.

UI Design:

Day Checker

Enter a number

Submit

Check List:
· Any Element of an Input set is Negative
· Any Element of an Input set is Alphabetic
· Any Element of an Input set is Special Symbol
· There are Less than one input
· There are More than one input
· Textbox must be editable
· Button must be clickable
· Result must be visible in output

Assumptions:
· Input must not be less than 0.
· Input must not be greater than 7.

List	Checklist	Input (N)	Expected Output
1.	Any Element Of an Input set is Negative	(-1)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A)	Error Message: Alphabets Not Allowed
3.	Any Element Of an Input set is Special Symbol	(!)	Error Message : Special Symbol Not Allowed
4.	There are Less than one input	()	Error Message : less than one Not Allowed
5.	There are More than one input	(10,20)	Error Message : More than three input Not Allowed
6.	Correct input of N	(2)	Today is tuesday

7. **An electric power distribution company charges its domestic consumers as follows:**

Consumption Units	Rate of Charge
0-100	Rs. 0.75 per unit
101 –300	Rs. 75 plus Rs. 1.00 per unit excess of 100
301 –500	Rs. 275 plus Rs. 1.50 per unit excess of 300
500 and above	Rs. 575 plus Rs. 1.75 per unit excess of 500

Prepare checklist for a program that read customer number & power consumed and prints the amount be paid by the customer. Note that output should well formatted.
UI Design:

Check List:

· Any Element of an Input set is Negative
· Any Element of an Input set is Alphabetic
· Any Element of an Input set is Special Symbol
· There are Less than two input
· There are More than two input
· Textbox must be editable
· Button must be clickable
· Result must be visible in output

Assumptions:
- First Input Must Consumer ID, Second Input Must be Power Consumed
- Input must not be less than 0.

List	Checklist	Input (n1,n2)	Expected Output
1.	Any Element Of an Input set is Negative	(-1500,2), (1500,-1)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A,2),(1500,B)	Error Message: Alphabets Not Allowed
3.	Any Element Of an Input set is Special Symbol	(!,5), (1500,#)	Error Message : Special Symbol Not Allowed
4.	Any Element Of an Input set is Zero	(0,25), (1500,0)	Error Message : zero Not Allowed
5.	There are Less than two input	(1500)	Error Message : less than three Not Allowed
6.	There are More than two input	(1500,25,5)	Error Message : More than three input Not Allowed
7.	First Input Must Consumer ID, Second Input Must be Power Consumed	(2,25000)	Error Message : Invalid input
8.	Correct input of n1,n2	(302398,10)	0.75 10 = Rs. 750

8. A library pays overtime to its staff as per the following schedule:

- If the basic salary of a worker is less than Rs. 2,500/-per month, her overtime allowance is Rs.10/-per hour for the first 10 hours and Rs. 7.50 per hour for hours in excess of 10, up to a maximum of Rs. 750/-per month.

- If the basic salary is in excess of Rs. 2,500/-per month but less than 3,500/-per month, the overtime allowance is Rs. 15/-per hour

for the first 10 hours, and Rs. 10 per hour for hours in excess of 10, up to a maximum of Rs. 1250/-per month.

· If the basic salary is in excess of Rs. 3,500/-per month, the overtime allowance is Rs. 20/-per hour for the first10 hours and Rs. 15 per hour for hours in excess of 10, up to a maximum of Rs. 1500/-per month.

Basic Salary (per month)	Overtime Allowance (per hour)	Maximum Overtime Allowance (per month)
Less than Rs. 2,500	Rs. 10 for first 10 hours, Rs. 7.50 thereafter	Rs. 750
Rs. 2,500 - Rs. 3,499	Rs. 15 for first 10 hours, Rs. 10 thereafter	Rs. 1250
Rs. 3,500 and above	Rs. 20 for first 10 hours, Rs. 15 thereafter	Rs. 1500

UI Design:

Check List:

· Any Element of an Input set is Negative
· Any Element of an Input set is Alphabetic
· Any Element of an Input set is Special Symbol
· There are Less than two input
· There are More than two input
· Textbox must be editable
· Button must be clickable
· Result must be visible in output

Assumptions:
- First Input Must Salary, Second Input Must be Overtime in hours
- Input must not be less than 0.

List	Checklist	Input (n1,n2)	Expected Output
1.	Any Element Of an Input set is Negative	(-1500,2), (1500,-1)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A,2),(1500,B)	Error Message: Alphabets Not Allowed
3.	Any Element Of an Input set is Special Symbol	(!,5), (1500,#)	Error Message : Special Symbol Not Allowed
4.	First Element Of an Input set is Zero	(0,25)	Error Message : zero Not Allowed
5.	There are Less than two input	(1500)	Error Message : less than three Not Allowed
6.	There are More than two input	(1500,25,5)	Error Message : More than three input Not Allowed
7.	First Input Must Salary, Second Input Must be Overtime	(10,2500)	Error Message : Invalid input
8.	Correct input of n1,n2	(1500,15)	$1500 + (10*10) + (7.5*5) = 1675$

Checklist preparation for user stories.

1. As a role of supervisor in a company I can keep track of order details only after successful log in which will ask for username, password. Logging into the system requires OTP verification via SMS.
UI Design:

Check List:

- First Element of an Input set is Negative
- First Element of an Input set is Alphabetic (for SMS Otp)
- First Element of an Input set is Special Symbol (for SMS Otp)
- There are Less than two input
- There are More than two input
- First Element Of an Input set is Zero
- Textbox must be editable
- Button must be clickable
- Success or failure message must be visible in output

Assumptions:
- First Input Must be username(Phone Number) and is of exact 10 digits, Second Input Must be Password
- Password must be visible in **** format

List	Checklist	Input (n1,n2)	Expected Output
1.	Any Element Of an Input set is Negative	(-8160026509,Neel)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A,2)	Error Message: Alphabets Not Allowed

3.	First Element Of an Input set is Special Symbol	(!,5)	Error Message : Special Symbol Not Allowed
4.	First Element Of an Input set is Zero	(0,1234)	Error Message : zero Not Allowed
5.	There are Less than two input	(1500)	Error Message : less than two Not Allowed
6.	There are More than two input	(1500,25,5)	Error Message : More than two input Not Allowed
7.	First Input Must be username(Phone Number) and is of exact 10 digits, Second Input Must be Password	(10,2500)	Error Message : Invalid input
8.	Correct input of username,password	(8160026509,Neel@1234)	Username: Neel Password: Neel@1234

If Password verified: Go to verification page to enter OTP

Check List:

- · Any Element of an Input set is Negative
- · Any Element of an Input set is Alphabetic (for SMS Otp)
- · Any Element of an Input set is Special Symbol (for SMS Otp)
- · There are Less than two input
- · There are More than two input
- · Textbox must be editable
- · Button must be clickable
- · Success or failure message must be visible in output

Assumptions:
· OTP must be of 6 digits

List	Checklist	Input (n1,n2)	Expected Output
1.	Any Element Of an Input set is Negative	(-8160026509)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A)	Error Message: Alphabets Not Allowed
3.	Any Element Of an Input set is Special Symbol	(!)	Error Message : Special Symbol Not Allowed
4.	There are Less than one input	()	Error Message : less than one Not Allowed
5.	There are More than one input	(1500,25,5)	Error Message : More than one input Not Allowed
6.	Otp must be of 6 digits	(7982500)	Error Message : Invalid input
7.	Correct input of entering OTP	(817024)	817024

2. As a role of member in a city library, I would like to make a request to issue a book title with 'The Elegant Universe'.
UI Design:

Check List:
· Any Element of an Input set is Negative
· Any Element of an Input set is Special Symbol
· There are Less than one input
· There are More than one input
· Search bar must be editable
· Button must be clickable
· Result must be visible in output

Assumptions:
· Member is already logged in to the system
· Book is already in stock
· Ignoring case sensitive

List	Checklist	Input (N)	Expected Output
1.	Any Element Of an Input set is Negative	(-1)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Special Symbol	(!)	Error Message : Special Symbol Not Allowed
3.	There are Less than one input	()	Error Message : less than one Not Allowed
4.	There are More than one input	("Atomic Habits","Rich Dad Poor Dad")	Error Message : More than one input Not Allowed
5.	Correct input of N	("The Elegant Universe")	The Elegant Universe

3. **As user of web application, I need to have an accordion which will be used to display answers related with three questions. Following are the questions.**
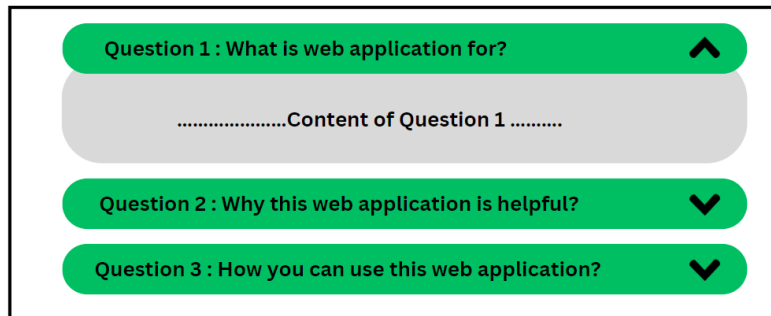
Question 1 : What is web application for?
…………………Content of Question 1 ……….
Question 2 : Why this web application is helpful?
………………..Content of Question 2 ……….
Question 3 : How you can use this web application?
……………....Content of Question 3 ……….

Note: When I will click on any question only the content of that respective question must be get visible.
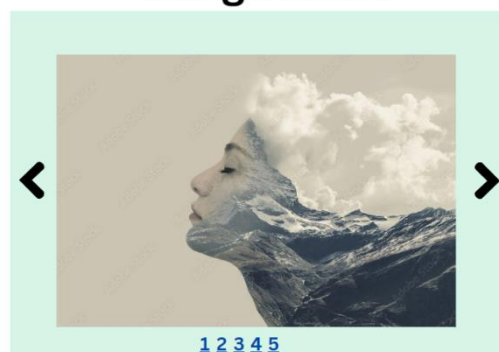
UI Design:

Checklist:

- Clicking on the question header expands/collapses the corresponding answer section
- After Clicking on the any question header collapses the opened corresponding answer section
- Questions must be clickable
- Questions must consists of content
- Questions should not be editable

Checklist preparationfor problem statements.

1. **Create a checklist for "Preparing Image Slider".**

Checklist:

- Extension of Image must be .jpg, .png, .jpeg format
- Path should matc with actual path

· Height and width must be set accordingly
· Page indexing should work properly

Assumptions:
· There should be an image slider
· Each bullet must be clickable
· Next previous buttons must be clickable
· If click on next button previous should not be performed
· If click on previous button next should not be perfomed
· There must be only 5 images and 4 bullet points

2. **Prepare a checklist for changing background of desktop screen.**
   Checklist:
   · It should have only one input
   · Resolution must be in good format
   · Extension of file must be of Image type
   · file is not corrupted or in an unsupported image format.
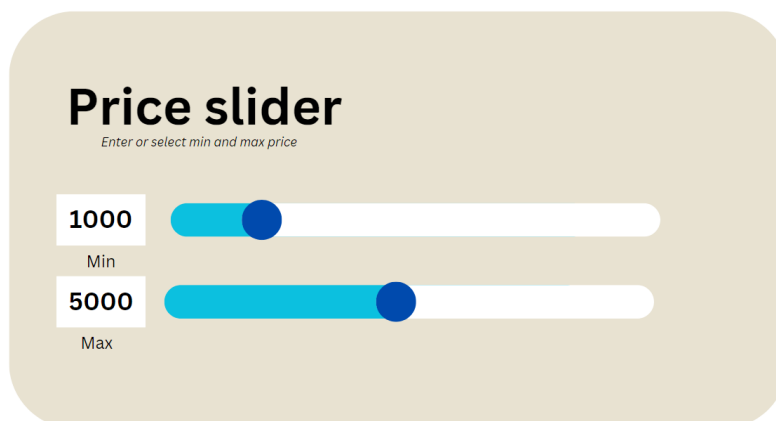3. Prepare a checklist for renaming a file in windows OS.
   Assumption:
   · First must be the name of the file and after that the extension of file
   · File must be exist for renaming
   · File should not be opened
   · Special characters are not included
   Checklist:
   · Changing File extension will give an error

4. Prepare a checklist for searching a product which price fall in 5,000 to 10,000 inside an e-commerce Application.

Price slider
Enter or select min and max price

| 1000 |
| Min |

| 5000 |
| Max |

Check List:
- · Any Element of an Input set is Alphabetic
- · Any Element of an Input set is Special Symbol
- · There are Less than two input
- · There are More than two input
- · Textbox must be editable
- · Buttons must be clickable
- · Result must be visible in output
- · Slider must be slidable
- · Max price cannot be less than min price

Assumption:
- · First input must be of min price and second input must be of min price

List	Checklist	Input (n1,n2)	Expected Output
1.	Any Element Of an Input set is Alphabetic	(A,2),(1500,B)	Error Message: Alphabets Not Allowed
2.	Any Element Of an Input set is Special Symbol	(!,5), (1500,#)	Error Message : Special Symbol Not Allowed
3.	There are Less than two input	(1500)	Error Message : less than two Not Allowed
4.	There are More than two input	(1500,25,5,10)	Error Message : More than two input Not Allowed
5.	Max price cannot be less than min price and same min price	(500,400)	Error Message : Max price cannot be less than min price
6.	Combination of rules	(-1500,25,*)	Error Message
7.	Correct input of min an max	(500,10,000)	500, 10,000