Week 4 (To Submit)

Exercise 1

Write a Python program to accept an input for “selection” the input can accept either upper case or lower case, and input for the amount.
Calculate the total based on the selection and amount input.
Expected Output:

```
B & B inn
Breakfast selection
[A]merican Breakfast (RM12.50)
[C]hinese Porridge   (RM 6.30)
[N]asi Lemah         (RM 5.50)
[F]ried Noodle       (RM 5.50)
[L]aksa              (RM 5.30)
[M]ee mamak          (RM 4.80)

Enter your selection:c
Enter the amount:3
Total: RM 18.9
>>>
```

Exercise 2

Write a Python program for Google Grocery shop to ease their cashiers to return the cash to their customers:

There are 3 selections provided by Google Grocery shop:
[V]egetable Selection, [M]eat Selection and [S]eafood Selection. Cashiers will key in V, M or S for the selection, error message (Wrong input. Please try again!) is displayed if cashiers key-in other than V, M or S. Note: the selection should not be case sensitive.
You can find items with price; sell at Google Grocery shop under each selection at Table 1.

```
Google Grocery shop
[V]egetable selection
[M]eat selection
[S]eafood selection

Enter your selection:s
Seafood section
Fish:5
Prawn (per 100gram):6
Crab (per 100gram):5
Total: 102.8

Amount Paid:110
Change: 7.200000000000003

Dollar            : 7.0
Quarter (25 cents): 0.0
Dime    (10 cents): 2.0
Nickle  (5 cents) : 0.0
Penny   (1 cent)  : 0.0
>>>
```

Cashier will key in the amount for "Amount Paid:" and find out the amount of 'change' as well as the number of dollar, quarter, dime, nickle and penny (please refer to table 2).

Vegetable Selection	Meat Selection	Seafood Selection
Cabbage: 2.30 French bead (per 100gram): 1.50 Brinjal (per 100gram):1.20 Broccoli : 1.80	Chicken (per 100gram): 8.50 Beef (per 100gram): 12.50 Lamp (per 100gram): 13.50	Fish: 6.50 Prawn (per 100gram): 6.80 Crab (per 100gram): 5.90

Table 1: Price per item (based on each selection)

Dollar	Quarter	Dime	Nickle	Penny
1	25 cents	10 cents	5 cents	1 cent

Table 2: USA Currency Coins

Exercise 3

Write a Python program for the follow output:

```
Excellent Tuition Center
Student Name:Vivi Ling
Number of subjects (3/5):3
Subject 1:Mathematics
Marks:55
Subject 2:English
Marks:67
Subject 3:Science
Marks:68
```

Excellent Tuition Center is required a system to display the student's performance. The system has 2 options, to key 3 subjects (Subject name and marks) or 5 subjects (Subject name and marks).
The output as below:

```
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Student name: Vivi Ling
Subject 1: Mathematics          Mark: 55.0      Grade: Pass
Subject 2: English              Mark: 67.0      Grade: Credit
Subject 3: Science              Mark: 68.0      Grade: Credit
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Highest Marks: 68.0             Subject: Science
Lowest Marks: 55.0              Subject: Mathematics
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Total Marks: 190.0
Average Marks: 63.33
Overall Grade: Pass
>>>
```

Display the student name, subjects (3 or 5 subjects) together with marks and grade (refer to table 3). The system also able to find out the "Highest Marks" and "Lowest marks" together with the subject. Able to display "Total Marks", "Average Marks", (format the answer to 2 decimals place), and "Overall Grade" is based on Average marks.

< 50	50– 65	66- 75	>75
Fail	Pass	Credit	Distinction

Table 3: Grading system

Note: Error message is display if key in the wrong selection.

Exercise 4

Write a Python program for the follow option:

```
Know more about your birthday!
1. Find your birthday's day
2. Find your birthday's day, n years later(based on user input)
3. Find the season based on your birthday date
4. Find your birthday's day, after n age (based on user input)
Selection:
```

Output for selection 1. Find your birthday's day

```
Know more about your birthday!
1. Find your birthday's day
2. Find your birthday's day, n years later(based on user input)
3. Find the season based on your birthday date
4. Find your birthday's day, after n age (based on user input)
Selection:1
Enter a date in YYYY/MM/DD format:1990/10/28
Your birthday's day is: Sunday
>>>
```

Output for selection 2. Find your birthday's day, n years later (based on user input)

```
Know more about your birthday!
1. Find your birthday's day
2. Find your birthday's day, n years later(based on user input)
3. Find the season based on your birthday date
4. Find your birthday's day, after n age (based on user input)
Selection:2
Enter a date in YYYY/MM/DD format:1990/10/28
n Years later:25
In year 2015 Your birthday's day is: Wednesday
>>>
```

Output for selection 3. Find the season (table 4) based on your birthday date

```
Know more about your birthday!
1. Find your birthday's day
2. Find your birthday's day, n years later(based on user input)
3. Find the season based on your birthday date
4. Find your birthday's day, after n age (based on user input)
Selection:3
Enter a date in YYYY/MM/DD format:1990/10/28
Your birth season is: Winter
>>>
```

January – March	April – June	July – September	October – December
Spring	Summer	Autumn	Winter

Table 4: Season

Output for selection 4. Find your birthday's day, after n age (based on user input)

```
Know more about your birthday!
1. Find your birthday's day
2. Find your birthday's day, n years later(based on user input)
3. Find the season based on your birthday date
4. Find your birthday's day, after n age (based on user input)
Selection:4
Enter a date in YYYY/MM/DD format:1990/10/28
Age:36
When you are 36 years old your birthday's day is: Wednesday
>>>
```

Note:

- "Import calender" is used

Exercise 5

Write a Python program for the follow output:

```
Month, time, day
[A] To calculate new calendar based on current date & time
[B] To calculate new calendar based on user input (date & time)
Selection:a
[C] Show new calendar after n years (user input)
[D] Show new date based on user input
[T] Show new time based on user input
Selection:c
```

There are 2 options [A] To calculate new calendar based on current date and time and [B] To calculate new calendar based on user input (date and time). Note: options should not be case sensitive. Under each option, there are same 3 options: [C] Show new calendar after n years (user input). [D] Show new date based on user input and [T] show new time based on user input.

Note: Error message is display if key in the wrong selection.

Output for option [A] To calculate new calendar based on current date and time.

```
Month, time, day
[A] To calculate new calendar based on current date & time
[B] To calculate new calendar based on user input (date & time)
Selection:a
[C] Show new calendar after n years (user input)
[D] Show new date based on user input
[T] Show new time based on user input
Selection:c
Show new calendar after n years (user input)
Years:34
Date: 2051-09-10
Day: Sunday
>>>
```

```
Month, time, day
[A] To calculate new calendar based on current date & time
[B] To calculate new calendar based on user input (date & time)
Selection:a
[C] Show new calendar after n years (user input)
[D] Show new date based on user input
[T] Show new time based on user input
Selection:d
Show new date based on user input
Days:60
2017-11-10
Day: Friday
>>>
```

```
Month, time, day
[A] To calculate new calendar based on current date & time
[B] To calculate new calendar based on user input (date & time)
Selection:a
[C] Show new calendar after n years (user input)
[D] Show new date based on user input
[T] Show new time based on user input
Selection:t
Show new time based on user input
Hours:6
Minutes:20
Seconds:7
Current time is: 12:24:38
New time is: 18:44:45
>>>
```

Output for [B] To calculate new calendar based on user input (date and time).

```
Month, time, day
[A] To calculate new calendar based on current date & time
[B] To calculate new calendar based on user input (date & time)
Selection:b
[C] Show new calendar after n years (user input)
[D] Show new date based on user input
[T] Show new time based on user input
Selection:c
Show new calendar after n years (user input)
Enter a date in YYYY/MM/DD format:2006/02/17
Years:36
Date: 2042-02-17
Day: Monday
>>>
```

```
Month, time, day
[A] To calculate new calendar based on current date & time
[B] To calculate new calendar based on user input (date & time)
Selection:b
[C] Show new calendar after n years (user input)
[D] Show new date based on user input
[T] Show new time based on user input
Selection:d
Show new date based on user input
Enter a date in YYYY/MM/DD format:2014/7/17
Days:74
2014-10-01
Day: Wednesday
>>>
```

```
Month, time, day
[A] To calculate new calendar based on current date & time
[B] To calculate new calendar based on user input (date & time)
Selection:b
[C] Show new calendar after n years (user input)
[D] Show new date based on user input
[T] Show new time based on user input
Selection:t
Show new time based on user input
Enter a time in hh:mm:ss format:15:10:36
Hours:4
Minutes:50
Seconds:50
Current time is: 15:10:36
New time is: 20:01:26
>>>
```