Numerical Analysis and Programming

Lab Worksheet #7

Exception Handling

1. Consider the following code segment:

```
def menu(alist, question):
    for entry in alist:
        print 1 + alist.index(entry),
        print ") " + entry

    return input(question) - 1

# main program

answer = menu(['Red','Blue','Purple','Gray','Black','Orange','White','Yellow'],\
'Which is your favorite color')

print 'You picked answer ' + (answer + 1)
```

   Run the program and enter a number when prompted. The code should run smoothly. What happens if you enter a letter?

2. Redefine `menu` as

```
def menu(alist, question):
    for entry in alist:
        print 1 + alist.index(entry),
        print ") " + entry
    try:
        return input(question) - 1
    except NameError:
        print "Enter a correct number"
```

   Try enter both a number and a letter when prompted. Understand why this happens.

3. Change the main program to

```
answer = menu(['Red','Blue','Purple','Gray','Black','Orange','White','Yellow'],\
'Which is your favorite color?')
try:
    print 'You picked answer', (answer + 1)
except:
    print '\nincorrect answer.'
```

   Try enter a number and a letter when prompted.

4. By now, you would conclude that the error is handled. Actually no. Run the program again and enter a $\star$ when prompted. How do you handle this error?