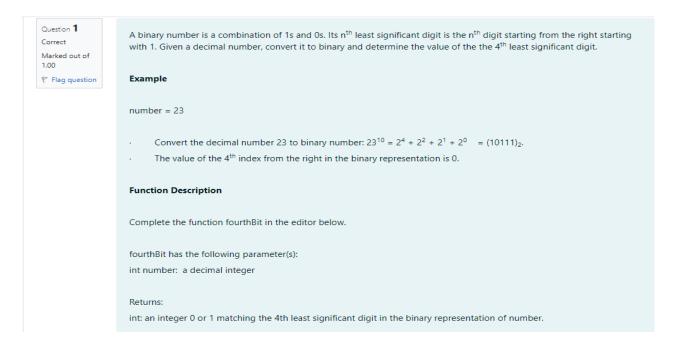
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#### Week-12

## **User defined functions**

## Question 1:

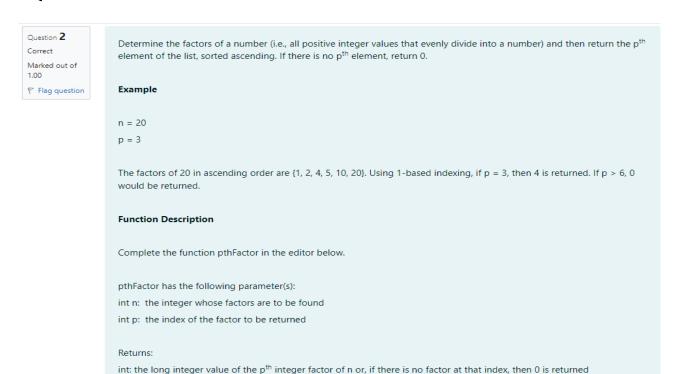


#### Source code and Result:

```
* Complete the 'fourthBit' function below.
     * The function is expected to return an INTEGER.
     \ensuremath{^{*}} The function accepts INTEGER number as parameter.
    int fourthBit(int number)
 9,
10
        int binary[32];
        int i=0;
11
        while(number>0)
13 🔻
14
             binary[i]=number%2;
15
             number/=2;
16
17
        if(i>=4)
18
19 •
20
             return binary[3];
21
22
        return 0;
24 }
```

Test	Expected	Got	
<pre>printf("%d", fourthBit(32))</pre>	0	0	~
printf("%d", fourthBit(77))	1	1	~
	<pre>printf("%d", fourthBit(32))</pre>	Test Expected  printf("%d", fourthBit(32)) 0  printf("%d", fourthBit(77)) 1	printf("%d", fourthBit(32)) 0 0

# Question 2:



## Source code and Result:

```
1 v
 2
      * Complete the 'pthFactor' function below.
 3
     \ensuremath{^{*}} The function is expected to return a LONG_INTEGER.
 4
     \ensuremath{^*} The function accepts following parameters:
 5
 6
     * 1. LONG_INTEGER n
     * 2. LONG_INTEGER p
8
 9
    long pthFactor(long n, long p)
10
11 v {
12
         int c=0;
13
         for(long i=1;i<=n;i++)</pre>
14
             if(n%i==0)
15
16
17
                  c++;
                 if(c==p)
18
19
20
                      return i;
21
22
23
24
         return 0;
25 }
```

	Test	Expected	Got	
<b>~</b>	<pre>printf("%ld", pthFactor(10, 3))</pre>	5	5	~
<b>~</b>	printf("%ld", pthFactor(10, 5))	0	0	~
<b>~</b>	printf("%ld", pthFactor(1, 1))	1	1	~