Code:

```
prime_number<- function(x){
   if(x==2){
   print("PRIME")
 } else {

   if((x%%2==0) ||(x%%3==0) || (x%%4==0)||(x%%5==0)||(x%%6==0)||
(x%%7==0)||(x%%8==0)||(x%%9==0)){
     print("The number is not a prime number!")

   } else {
     print("The number is Prime")

   }}}



prime_number(102);
prime_number(82);
prime_number(179);
```

Output:

```
> prime_number<- function(x){
+     if(x==2){
+     print("PRIME")
+   } else {
+
+     if((x%%2==0) ||(x%%3==0) || (x%%4==0)||(x%%5==0)||(x%%6==0)|| (x%%7==0)
||(x%%8==0)||(x%%9==0)){
+       print("The number is not a prime number!")
+
+     } else {
+       print("The number is Prime")
+
+     }}}
>
>
> prime_number(102);
```

```
[1] "The number is not a prime number!"
> prime_number(82);
[1] "The number is not a prime number!"
> prime_number(179);
[1] "The number is Prime"
```

#Identifing letters u and a

Code:

```
identify<-function(x){
 if(grepl('a',x)==TRUE && grepl('u',x)){
     cat('Yes, both a and u are present in',x)
   }
  else{
    print('No, they are not present.')
  }
}

identify('above');
identify('unit');
identify('Under');
```

Output:

```
> identify<-function(x){
+  if(grepl('a',x)==TRUE && grepl('u',x)){
+       cat('Yes, both a and u are present in',x)
+     }
+   else{
+     print('No, they are not present.')
+   }
+ }
>
> identify('above');
[1] "No, they are not present."
> identify('unit');
[1] "No, they are not present."
> identify('Under');
[1] "No, they are not present."
```

#BMI Index calculator

Code:

```
BMI_Calc<-function(h,w){
   BMI=((w*703)/(h*h))
   if(BMI<15){print('Very severely underweight')}
  else{
   if(BMI>=15&&BMI<16){print('Severly Underweight')}
   else {
    if(BMI>=16 && BMI<18.5){print('Underweight')}
   else{
    if(BMI>=18.5 && BMI<25){print('Normal (Healthy weigth)')}
    else{
     if(BMI>=25 && BMI<30){print('Overweight')}
     else{
      if(BMI>=30 && BMI<35){print('Obese class I')}
     else{
      if(BMI>=35 && BMI<40){print('obese class II')}
      else{
       if(BMI>=40){print('Obese class III')}
         }
        }
        }
       }
     }
    }
   }
   return(BMI)
   }
```

BMI_Calc(70,165);

BMI_Calc(70,162);

Output:

```
> BMI_Calc<-function(h,w){
+     BMI=((w*703)/(h*h))
+     if(BMI<15){print('Very severely underweight')}
+   else{
+     if(BMI>=15&&BMI<16){print('Severly Underweight')}
+     else {
+       if(BMI>=16 && BMI<18.5){print('Underweight')}
+     else{
+       if(BMI>=18.5 && BMI<25){print('Normal (Healthy weigth)')}
+       else{
+         if(BMI>=25 && BMI<30){print('Overweight')}
+         else{
+           if(BMI>=30 && BMI<35){print('Obese class I')}
+         else{
+           if(BMI>=35 && BMI<40){print('obese class II')}
+           else{
+             if(BMI>=40){print('Obese class III')}
+               }
+             }
+             }
+           }
+         }
+       }
+     }
+     return(BMI)
+     }
>
>
>
> BMI_Calc(70,165);
[1] "Normal (Healthy weigth)"
[1] 23.67245
> BMI_Calc(70,162);
[1] "Normal (Healthy weigth)"
[1] 23.24204
```