Week 3 Exercises

Exercise 3.1: Remove a Character

Write a method `removeCharacter` that given a non-empty string and an integer, it returns a new string where the character at index n has been removed. The value of n will be a valid index of a char in the original string (i.e. *n* will be in the range of 0..str.length()-1 inclusive).

Use the following method signature:

```
public static String removeCharacter(String str, int n)
```

For instance,

- `removeCharacter("kitten", 1)` will return `"ktten"`
- `removeCharacter("kitten", 0)` will return `"itten"`
- `removeCharacter("kitten", 4)` will return `"kittn"`

Exercise 3.2: Remove All Characters

Write a method `removeAll` that given a non-empty string and a character, it returns a new string where all occurrences of the specified character are removed.

Use the following method signature:

```
public static String removeAll(String str, char ch)
```

For instance,

- `removeAll("kitten", 'i')` will return `"ktten"`
- `removeAll("kitten", 'k')` will return `"itten"`
- `removeAll("kitten", 't')` will return `"kien"`
- `removeAll("participant", 'p')` will return `"articiant"`

Exercise 3.3: Extract Last Digit

Write a method `extractLastDigit` that given an integer, it returns the value at the last digit.

Use the following method signature:

```
public static int extractLastDigit(int number)
```

For instance,

- `extractLastDigit(2498)` will return `8`.
- `extractLastDigit(340)` will return `0`.

Exercise 3.4: Extract Last Digit from String

Write a method `extractLastDigit` that given a string, it returns the value at the last digit. If the last character is not a digit, return -1.

Use the following method signature:

```
public static int extractLastDigit(String number)
```

For instance,

- `extractLastDigit("2498")` will return `8`.
- `extractLastDigit("Fun Exercise")` will return `-1`.