

**Assignment 1:** In this assignment, we will learn regular expressions or in short, Regex. We will do 5 different regex problems very similar to each other and combine them to a single code ultimately. We will use a menu which will have a range 1 to 6, 1-5 for different regex and 6 for exit. We will of course keep the entire code in an infinite while or for loop so that we can run the program and reuse specific regex. Try to keep each regex in each user-defined function and will call the functions based on menu selection. Good luck!

**1. Validate UIU CSE ID:**

**Valid:** 011177011, 011161111

**Not Valid:** 011174011, 0111414114 , 011211411

**2. Validate UIU CSE and EEE email address:**

**Valid:** nhossain203122@bscse.uiu.ac.bd , ijahan183122@bseee.uiu.ac.bd

**Not Valid:** nhossain@bscse.uiu.ac.bd , nhossain203122@gmail.com,  
nhossain203122 @bscivil.uiu.ac.bd

**3. Validate a password using the following criteria:**

- contains at least 8 characters
- contains both lower (a-z) and upper case letters (A-Z)
- contains at least one number (0-9)
- contains a special character from the following (@,#,%, &)
- ends with capital "P"

**Valid:** 5154aY@P , T7871w#14P

**Not Valid:** 15a1E@P , 154RD1@pp , 1514\_aAa14@P

**4. Validate a number**

**Valid:** 25 , 25.52 , +25 , -25.25 , .24

**Not Valid:** 22ab, 24. , +-58

**5. Validate the following string using the following criteria:**

- start with a name in small letters.
- fix string "UIU"
- a digit (0-9)
- end with the same name(starting name)

**Valid:** karimUIU1karim , aliUIU9ali

**Not Valid:** karimUIU1rahim , aliNSU9ali , aliUIUali

