|  |
| --- |
| You are developing a software package that requires users to enter their own passwords. Loop until the passwords meet the software criteria.   * The password should be at least six characters long. * The password should contain at least one uppercase and one lowercase letter. * The password should have at least one digit.   The program should have an isValid function that will test if the password is valid. Use the following code to declare a password variable with a global constant int SIZE=80;  char password[SIZE];  Next, use a while(true) to continue looping until the user enters a valid password. Read in the password and call the isValid program. You can use the isupper(), islower(), and isdigit() functions. For example,  if (isdigit(\*password))  //if this is true, you know the password has at least one digit.  Output from Program:  **Password requirements:**  **- The password should be at least six characters long.**  **- The password should contain at least one uppercase**  **- and one lowercase letter.**  **- The password should have at least one digit.**  **Enter a password: aaaaaaa**  **The password was invalid.**  **Password requirements:**  **- The password should be at least six characters long.**  **- The password should contain at least one uppercase**  **- and one lowercase letter.**  **- The password should have at least one digit.**  **Enter a password: aBcdEfg**  **The password was invalid.**  **Password requirements:**  **- The password should be at least six characters long.**  **- The password should contain at least one uppercase**  **- and one lowercase letter.**  **- The password should have at least one digit.**  **Enter a password: abc123D**  **The password is valid.** |
| **Step 2:** Processing Logic |
| Using the pseudocode below, write the code that will meet the requirements.  Declare constants SIZE and MIN  Function prototype for isValid  Main Function    Declare the password as a character array.  While true  Display the password requirements  Get password from user  Call the isValid function  Display results of isValid function  isValid function  Declare Boolean variables  Use strlen command to determine the length of the password and if it is greater than MIN, set bool value to true  Loop  Test if password has a lowercase letter  Test if password has an upperecase letter  Test if password has a digit  Go to next character (ie \*password++;)  End loop  If all boolean values are true, return 1, else return 0 |