

Assignment: MPIN Task

Background of the Task:

Read about MPIN that is used to access mobile banking apps. Many a times users end up setting an MPIN that is guessable because

1. It is a commonly used MPIN (eg 1122)
2. It is a combination of easily known demographics of the user. Eg: if the birthdate is 02 Jan-1998 then MPIN could be 0201 or 9802 or 0201 etc. Demographics such as these could be used alone or in a combination
 - DOB
 - Wedding Anniversary
 - Spouse birthday

Expected Outcome:

1. **Part A:** Assume that the MPIN is 4-digits. Write a program that suggests if the MPIN is a commonly used one. Ignore the demographics for this part
2. **Part B:** Enhance the above to take user's demographics as input and provides an output
 - a. Strength: WEAK or STRONG
3. **Part C:** Enhance the above to provide the following outputs
 - a. Strength: WEAK or STRONG
 - b. If weak then the reason why was it considered weak: It should give from the following the reasons as an array. Array should be empty if Strength is STRONG and non-empty if WEAK
 - COMMONLY_USED
 - DEMOGRAPHIC_DOB_SELF
 - DEMOGRAPHIC_DOB_SPOUSE
 - DEMOGRAPHIC_ANNIVERSARY
4. **Part D:** Above with a 6-digit PIN
5. Write code that tests the above written code using a set of inputs. Write at least 20 test case scenarios