

# MPIN Task

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## Background

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
  - a. DOB
  - b. Wedding Anniversary
  - c. 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.

**Note - Please don't use HARDCODED VALUES in the code.**

## About Us

OneBanc is a neobank, building the economic infrastructure for the workforce of India. The idea of OneBanc started when a young girl asked Vibhore, a serial entrepreneur, why the money in her piggybank never grew. Adopting this philosophy of #DemandMore, OneBanc connects enterprises, banks, and HR Tech platforms to enhance value for all stakeholders. The core team has proven their vision and executive prowess in CoCubes - a complete assessment solution for students and institutes, which was acquired by Aon. They are now building the squad to enable FinTech revolution of the future.

OneBanc is building a digital, AI-enabled ecosystem that focuses on delivering a personalized banking experience to white-collar professionals in India, which is valued at \$87 billion and is projected to grow at a CAGR of 12%. The 'OneBanc Ecosystem' comprises RBI-regulated banks, merchants, and HR tech platforms.

Corporates see the OneBanc platform as an avenue to- improve compliance, increase productivity, and deliver #FinancialWellness for their team members. Partners (Banks, Merchants, HRMS) see the OneBanc platform as an avenue to increase their revenue, improve margins and increase the loyalty customers have towards them.