PART A: Assuming the MPIN is 4-digits. The program suggests if it is a commonly used one (ignoring the demographics for this part).

As stated in Part C, all the outputs contain one of the following reasons if it is a weak password-

    a. COMMONLY_USED
    b. DEMOGRAPHIC_DOB_SELF
    c. DEMOGRAPHIC_DOB_SPOUSE
    d. DEMOGRAPHIC_ANNIVERSARY

```
Test 1: MPIN='1111', DOB_Self='1982-12-31', DOB_Spouse='1993-01-01', Anniv='2001-07-07'
  Expected: Strength='WEAK', Reasons=['COMMONLY_USED']
  Actual:   Strength='WEAK', Reasons=['COMMONLY_USED']
  Status: PASSED

Test 2: MPIN='1234', DOB_Self='1995-03-15', DOB_Spouse='1982-07-20', Anniv='2005-11-10'
  Expected: Strength='WEAK', Reasons=['COMMONLY_USED']
  Actual:   Strength='WEAK', Reasons=['COMMONLY_USED']
  Status: PASSED

Test 3: MPIN='0000', DOB_Self='1982-12-31', DOB_Spouse='1989-01-01', Anniv='2001-07-07'
  Expected: Strength='WEAK', Reasons=['COMMONLY_USED']
  Actual:   Strength='WEAK', Reasons=['COMMONLY_USED']
  Status: PASSED

Test 4: MPIN='9999', DOB_Self='1995-03-15', DOB_Spouse='2008-07-20', Anniv='2005-11-10'
  Expected: Strength='WEAK', Reasons=['COMMONLY_USED']
  Actual:   Strength='WEAK', Reasons=['COMMONLY_USED']
  Status: PASSED

Test 5: MPIN='0123', DOB_Self='1982-12-31', DOB_Spouse='2003-01-01', Anniv='2001-07-07'
  Expected: Strength='WEAK', Reasons=['COMMONLY_USED']
  Actual:   Strength='WEAK', Reasons=['COMMONLY_USED']
  Status: PASSED

Test 6: MPIN='4321', DOB_Self='1995-03-15', DOB_Spouse='1998-07-20', Anniv='2005-11-10'
  Expected: Strength='WEAK', Reasons=['COMMONLY_USED']
  Actual:   Strength='WEAK', Reasons=['COMMONLY_USED']
  Status: PASSED

Test 7: MPIN='1122', DOB_Self='1982-12-31', DOB_Spouse='1983-01-01', Anniv='2001-07-07'
  Expected: Strength='WEAK', Reasons=['COMMONLY_USED']
  Actual:   Strength='WEAK', Reasons=['COMMONLY_USED']
  Status: PASSED
```

PART B: Enhancing the above to take user's demographics and provide an output as either 'Strong' or 'Weak'.

a. DOB Self

```
Test 8: MPIN='0102', DOB_Self='1990-02-01', DOB_Spouse='1982-07-20', Anniv='1982-12-31'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Status: PASSED

Test 9: MPIN='0201', DOB_Self='1990-01-02', DOB_Spouse='1998-07-20', Anniv='1995-03-15'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Status: PASSED

Test 10: MPIN='9001', DOB_Self='1990-01-02', DOB_Spouse='1982-07-20', Anniv='1982-12-31'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Status: PASSED

Test 11: MPIN='9002', DOB_Self='1990-02-01', DOB_Spouse='1998-07-20', Anniv='1995-03-15'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SELF']
  Status: PASSED
```

b. DOB Spouse

```
Test 12: MPIN='0304', DOB_Self='1995-03-15', DOB_Spouse='1985-04-03', Anniv='1998-07-20'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SPOUSE']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SPOUSE']
  Status: PASSED

Test 13: MPIN='0403', DOB_Self='1995-03-15', DOB_Spouse='1985-03-04', Anniv='1998-07-20'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SPOUSE']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_DOB_SPOUSE']
  Status: PASSED
```

c. Anniversary Date

```
Test 14: MPIN='0506', DOB_Self='1998-07-20', DOB_Spouse='1990-01-02', Anniv='2000-06-05'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_ANNIVERSARY']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_ANNIVERSARY']
  Status: PASSED

Test 15: MPIN='0605', DOB_Self='1990-01-02', DOB_Spouse='1998-07-20', Anniv='2000-05-06'
  Expected: Strength='WEAK', Reasons=['DEMOGRAPHIC_ANNIVERSARY']
  Actual:   Strength='WEAK', Reasons=['DEMOGRAPHIC_ANNIVERSARY']
  Status: PASSED
```

INVALID FORMAT:

```
Error: Please enter exactly 4 digits.
Test 19: MPIN='123', DOB_Self='', DOB_Spouse='', Anniv=''
  Expected: Strength='INVALID', Reasons=['format_is_invalid']
  Actual:   Strength='INVALID', Reasons=['format_is_invalid']
  Status: PASSED

Error: Please enter exactly 4 digits.
Test 20: MPIN='ABCD', DOB_Self='', DOB_Spouse='', Anniv=''
  Expected: Strength='INVALID', Reasons=['format_is_invalid']
  Actual:   Strength='INVALID', Reasons=['format_is_invalid']
  Status: PASSED
```

STRONG MPIN:

```
Test 16: MPIN='7891', DOB_Self='1982-12-31', DOB_Spouse='1983-01-01', Anniv='2001-07-07'
  Expected: Strength='STRONG', Reasons=[]
  Actual:   Strength='STRONG', Reasons=[]
  Status: PASSED

Test 17: MPIN='0167', DOB_Self='1970-04-05', DOB_Spouse='1972-06-10', Anniv='1998-09-25'
  Expected: Strength='STRONG', Reasons=[]
  Actual:   Strength='STRONG', Reasons=[]
  Status: PASSED

Test 18: MPIN='9871', DOB_Self='1995-03-15', DOB_Spouse='1988-07-20', Anniv='2005-11-10'
  Expected: Strength='STRONG', Reasons=[]
  Actual:   Strength='STRONG', Reasons=[]
  Status: PASSED
```