

Arfan Danial Bin Zainal Abidin, 20284997

Chau Lindon, 20284682

### Test Data

Reference: Yes – 2 Sometimes – 1 No – 0

Risk level score <= 5, **Low**

Risk level score >=14, **High**

Risk level score >5 but <14, **Moderate**

	Frequent urination	Extreme hunger	Weight loss	Blurred vision	Thirsty	Infection	Body fatigue	Slower sores healing	Result/Risk level
Test 1	2	2	2	2	2	2	2	2	High
Test 2	2	0	2	1	2	1	0	0	Moderate
Test 3	0	1	0	1	1	0	1	0	Low
Test 4	3 (invalid)	2	1	0	2	0	1	1	Re-enter data needed for Q1.
Test 5	2	A (invalid)	2	0	1	2	1	2	Re-enter data needed for Q2.
Test 6	2	2	53 (invalid)	1	2	1	2	2	Re-enter data needed for Q3.
Test 7	2	B (invalid)	99 (invalid)	1	2	c (invalid)	1	0	Re-enter data needed for Q2. Q3. Q6.

### Test Run 1 (screenshot)

```
-----
----- Test for Type 1 Diabetes -----
-----
You are required to answer these question to determine risk
Follow the digit under each question to answer the question

Q1.Do you frequently urinate at night?
Yes-2 Sometimes-1 No-0: 2

Q2.Do you experince extreme hunger despite you are eating?
Yes-2 Sometimes-1 No-0: 2

Q3.Are you having unintended weight loss?
Yes-2 Sometimes-1 No-0: 2

Q4.Have you had any sudden blurred in vision?
Yes-2 Sometimes-1 No-0: 2

Q5.Do you feel thirsty more often than usual?
Yes-2 Sometimes-1 No-0: 2

Q6.Are you having more infections than usual?
Yes-2 Sometimes-1 No-0: 2

Q7.Do you often experince body fatigue?
Yes-2 Sometimes-1 No-0: 2

Q8.Are you having sores that heal significantly slow?
Yes-2 Sometimes-1 No-0: 2
-----
Risk Level for Type 1 Diabetes: High
-----

Do you want to retry? Y=yes other keys-No: |
```

### Test Run 2 (screenshot)

```
-----
----- Test for Type 1 Diabetes -----
-----
You are required to answer these question to determine risk
Follow the digit under each question to answer the question

Q1.Do you frequently urinate at night?
Yes-2 Sometimes-1 No-0: 2

Q2.Do you experince extreme hunger despite you are eating?
Yes-2 Sometimes-1 No-0: 0

Q3.Are you having unintended weight loss?
Yes-2 Sometimes-1 No-0: 2

Q4.Have you had any sudden blurred in vision?
Yes-2 Sometimes-1 No-0: 1

Q5.Do you feel thirsty more often than usual?
Yes-2 Sometimes-1 No-0: 2

Q6.Are you having more infections than usual?
Yes-2 Sometimes-1 No-0: 1

Q7.Do you often experince body fatigue?
Yes-2 Sometimes-1 No-0: 0

Q8.Are you having sores that heal significantly slow?
Yes-2 Sometimes-1 No-0: 0
-----
Risk Level for Type 1 Diabetes: Moderate
-----

Do you want to retry? Y=yes other keys-No: |
```

### Test Run 3 (screenshot)

```
-----
----- Test for Type 1 Diabetes -----
-----
You are required to answer these question to determine risk
Follow the digit under each question to answer the question

Q1.Do you frequently urinate at night?
Yes-2  Sometimes-1  No-0: 0

Q2.Do you experince extreme hunger despite you are eating?
Yes-2  Sometimes-1  No-0: 1

Q3.Are you having unintended weight loss?
Yes-2  Sometimes-1  No-0: 0

Q4.Have you had any sudden blurred in vision?
Yes-2  Sometimes-1  No-0: 1

Q5.Do you feel thirsty more often than usual?
Yes-2  Sometimes-1  No-0: 1

Q6.Are you having more infections than usual?
Yes-2  Sometimes-1  No-0: 0

Q7.Do you often experince body fatigue?
Yes-2  Sometimes-1  No-0: 1

Q8.Are you having sores that heal significantly slow?
Yes-2  Sometimes-1  No-0: 0
-----
Risk Level for Type 1 Diabetes: Low
-----

Do you want to retry? Y=yes  other keys-No: |
```

### Test Run 4 (screenshot)

```
-----
----- Test for Type 1 Diabetes -----
-----
You are required to answer these question to determine risk
Follow the digit under each question to answer the question

Q1.Do you frequently urinate at night?
Yes-2  Sometimes-1  No-0: 3
Error! a digit smaller than 0 or larger than 2 was entered

Q2.Do you experince extreme hunger despite you are eating?
Yes-2  Sometimes-1  No-0: 2

Q3.Are you having unintended weight loss?
Yes-2  Sometimes-1  No-0: 1

Q4.Have you had any sudden blurred in vision?
Yes-2  Sometimes-1  No-0: 0

Q5.Do you feel thirsty more often than usual?
Yes-2  Sometimes-1  No-0: 2

Q6.Are you having more infections than usual?
Yes-2  Sometimes-1  No-0: 0

Q7.Do you often experince body fatigue?
Yes-2  Sometimes-1  No-0: 1

Q8.Are you having sores that heal significantly slow?
Yes-2  Sometimes-1  No-0: 1
-----
You have entered invalid data 1 time(s)
You will have to re-enter the data
-----

Q1.Do you frequently urinate at night?
Yes-2  Sometimes-1  No-0: |
```

## Test Run 5 (screenshot)

```
-----
-----      Test for Type 1 Diabetes      -----
-----
You are required to answer these question to determine risk
Follow the digit under each question to answer the question

Q1.Do you frequently urinate at night?
Yes-2  Sometimes-1  No-0: 2

Q2.Do you experince extreme hunger despite you are eating?
Yes-2  Sometimes-1  No-0: A
Error! characters was entered in the questionnaire

Q3.Are you having unintended weight loss?
Yes-2  Sometimes-1  No-0: 2

Q4.Have you had any sudden blurred in vision?
Yes-2  Sometimes-1  No-0: 0

Q5.Do you feel thirsty more often than usual?
Yes-2  Sometimes-1  No-0: 1

Q6.Are you having more infections than usual?
Yes-2  Sometimes-1  No-0: 2

Q7.Do you often experince body fatigue?
Yes-2  Sometimes-1  No-0: 1

Q8.Are you having sores that heal significantly slow?
Yes-2  Sometimes-1  No-0: 2
-----
You have entered invalid data 1 time(s)
You will have to re-enter the data
-----

Q2.Do you experince extreme hunger despite you are eating?
Yes-2  Sometimes-1  No-0: |
```

## Test Run 6 (screenshot)

```
-----
-----      Test for Type 1 Diabetes      -----
-----
You are required to answer these question to determine risk
Follow the digit under each question to answer the question

Q1.Do you frequently urinate at night?
Yes-2  Sometimes-1  No-0: 2

Q2.Do you experince extreme hunger despite you are eating?
Yes-2  Sometimes-1  No-0: 2

Q3.Are you having unintended weight loss?
Yes-2  Sometimes-1  No-0: 53
Error! more than 1 digit is entered in the questionnaire

Q4.Have you had any sudden blurred in vision?
Yes-2  Sometimes-1  No-0: 1

Q5.Do you feel thirsty more often than usual?
Yes-2  Sometimes-1  No-0: 2

Q6.Are you having more infections than usual?
Yes-2  Sometimes-1  No-0: 1

Q7.Do you often experince body fatigue?
Yes-2  Sometimes-1  No-0: 2

Q8.Are you having sores that heal significantly slow?
Yes-2  Sometimes-1  No-0: 2
-----
You have entered invalid data 1 time(s)
You will have to re-enter the data
-----

Q3.Are you having unintended weight loss?
Yes-2  Sometimes-1  No-0: |
```

## Test Run 7 (screenshot)

```
-----
-----      Test for Type 1 Diabetes      -----
-----
You are required to answer these question to determine risk
Follow the digit under each question to answer the question

Q1.Do you frequently urinate at night?
Yes-2  Sometimes-1  No-0: 2

Q2.Do you experince extreme hunger despite you are eating?
Yes-2  Sometimes-1  No-0: B
Error! characters was entered in the questionnaire

Q3.Are you having unintended weight loss?
Yes-2  Sometimes-1  No-0: 99
Error! more than 1 digit is entered in the questionnaire

Q4.Have you had any sudden blurred in vision?
Yes-2  Sometimes-1  No-0: 1

Q5.Do you feel thirsty more often than usual?
Yes-2  Sometimes-1  No-0: 2

Q6.Are you having more infections than usual?
Yes-2  Sometimes-1  No-0: c
Error! characters was entered in the questionnaire

Q7.Do you often experince body fatigue?
Yes-2  Sometimes-1  No-0: 1

Q8.Are you having sores that heal significantly slow?
Yes-2  Sometimes-1  No-0: 0
-----
You have entered invalid data 3 time(s)
You will have to re-enter the data
-----

Q2.Do you experince extreme hunger despite you are eating?
Yes-2  Sometimes-1  No-0: d
Error! characters was entered in the questionnaire
-----
You failed to enter valid data!
Results cannot be computed
-----

Do you want to retry? Y=yes  other keys-No: n

Stay Healthy
and Have a nice day!
```

## References

<https://www.mayoclinic.org/diseases-conditions/type-1-diabetes/symptoms-causes/syc-20353011>

<https://www.cdc.gov/diabetes/basics/symptoms.html>

<https://www.diabetes.org/diabetes/type-1/symptoms>

## Assumption

- User is given 2 chance to enter valid answer for each question
- If invalid data was entered during the re-enter of data, the program will not ask any further question despite more than 1 question was invalid during first attempt at questionnaire.  
(eg. Test Run 7)