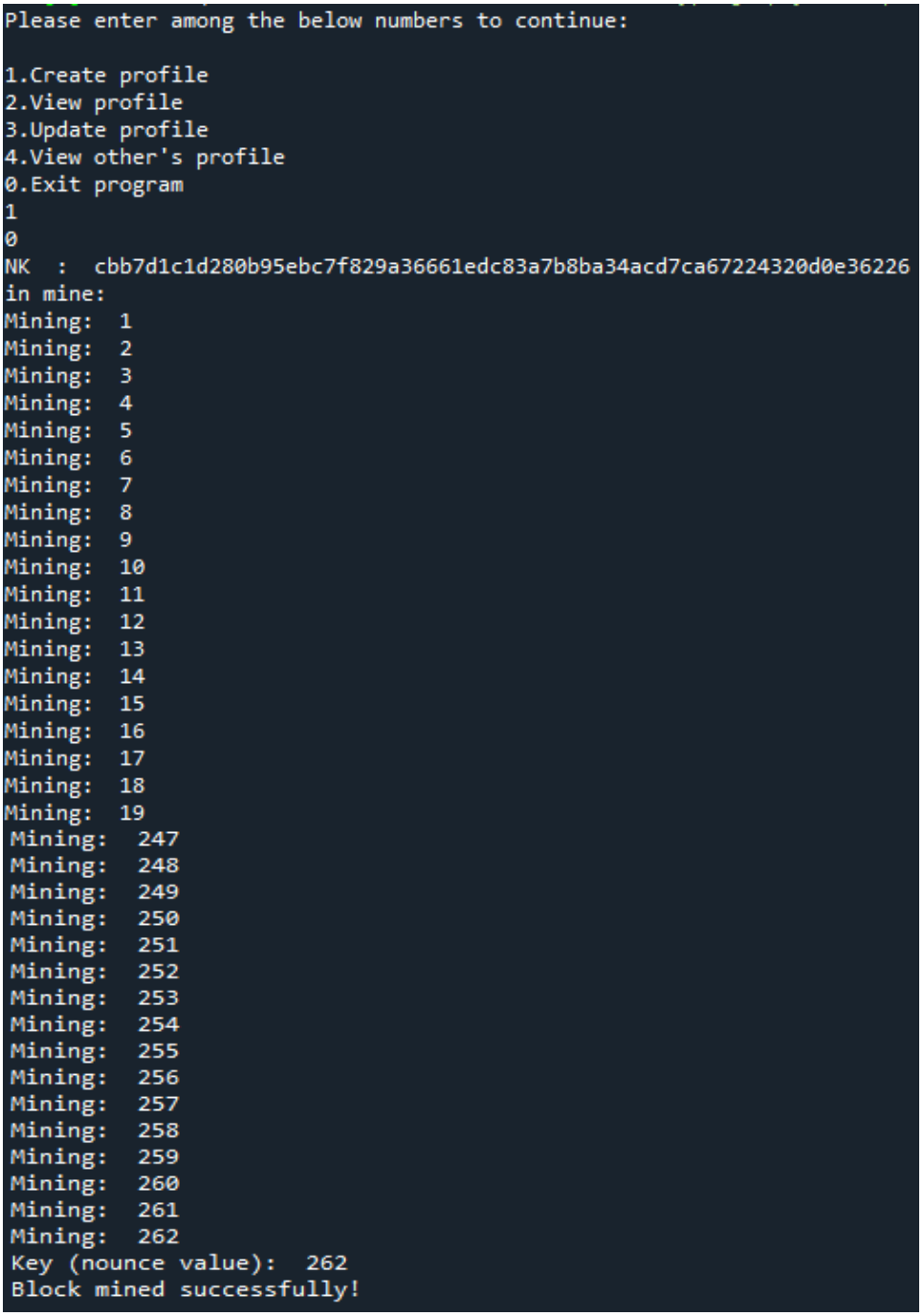
# Health Ledger Using Blockchain

## *Demonstration*

The below shown are screenshots of the ledger program:

**Option 1**: Create profile.

When selected this option executes as shown. Finally adding a new block to the chain.



**Option 2**: View profile

When selected it asks for key value. The profile details are shown as below:

```
Please enter among the below numbers to continue:

1.Create profile
2.View profile
3.Update profile
4.View other's profile
0.Exit program
2

Enter your key to view details:
262
........Data.........
Name:  NK
Age:  20
Health condition(s):  Cold,Cough
Permitted users:  Punith,Manoj
```

**Option 3**: Update profile

When selected the program asks user to enter key.
The user is asked if wishes to update health condition field.
If yes, he is prompted to update.

After all the fields are updated, the block is mined and added to the chain as shown below.

```
Please enter among the below numbers to continue:

1.Create profile
2.View profile
3.Update profile
4.View other's profile
0.Exit program
3

Enter your key to update:
262

Update health condition(s)? (y/n)
y

Enter updated health condition(s):
Headache,Leg cramps

Update age? (y/n)
n

Update permitted names? (y/n)
n
in mine:
Mining:  1
Mining:  2
Mining:  3
Mining:  4
Mining:  5
Mining:  6
Mining:  7
Mining:  8
Mining:  9
Mining:  10
```

**Option 4**: View other's profile

When selected the user is asked details as below.
Upon successfully completing the zero knowledge proof, the user is shown the data.

```
Please enter among the below numbers to continue:

1.Create profile
2.View profile
3.Update profile
4.View other's profile
0.Exit program
4

Enter patient's encrypted name:
b3e82ca42bbc2b5cd7ead94206edcc078a1f8d681201f7ccd4251a3904fa0bcb


Enter your name:
NK
Executing zero knowledge proof

Hey Prover!
Enter a prime number:
11

Hey Prover!
Enter a random number b/w 2 and(prime -1)
7

Hey Verifier!
Enter a random bit 0 or 1
1
Verifying transaction:
Inside gcd() 2

Inside gcd() 2
```

[Verification in progress]

```
[_|_]
[_|_]
[_|_]
[_|_]
[_|_]
[_|_]
[_|_]
[_|_]
[_|_]
.........Data.........
Name:  Punith
Age:  22
Health condition(s):  Flu,Cold
Permitted users:  NK
```