Aim:

Generate a list of four digit numbers in a given range with all their digits even and the number is a perfect square.

Algorithm:

```
for i in range(2000,10000,2):
    for j in range(38,1000,1):
        if i == j*j:
            string = str(i)
            if int(string[0])%2 == 0 and int(string[1])%2 == 0 and int(string[2])%2 == 0 and int(string[3])%2 == 0:
            print(i)
```

Output:

```
C:\Users\acer\PycharmProjects\pythonProject\venv\Scripts\python.exe "C:/Users/acer/PycharmProjects/pythonProject/square and even.py"
4624
6884
6408
8464
Process finished with exit code 8
```