Python While Loop – Solved Examples

1. ATM Pin Validation
```python
correct_pin = "1234"
attempts = 0
while attempts < 3:
  pin = input("Enter your PIN: ")
  if pin == correct_pin:
    print("Access Granted")
    break
  else:
    attempts += 1
    print("Incorrect PIN")
```

2. Password Strength Checker
```python
while True:
  password = input("Enter password: ")
  if len(password) >= 8 and any(c.isdigit() for c in password) and any(c.isalpha() for c in password):
    print("Strong Password")
    break
  else:
    print("Invalid Password")
```

3. Recharge Reminder
```python
days = int(input("Enter days: "))
while days > 0:
  print(days)
  days -= 1
print("Plan Expired")
```

4. Email Validation
```python
while True:
  email = input("Enter email: ")
  if "@" in email and "." in email:
    print("Valid Email")
    break
  else:
    print("Invalid Email")
```

5. Loan Repayment
```python
loan = float(input("Loan amount: "))
payment = float(input("Monthly payment: "))
while loan > 0:
  loan -= payment
  print("Remaining:", loan)
print("Loan Paid")
```

6. Quiz Game
```python
score = 0
while score < 5:
  ans = input("5+3 = ")
  if ans == "8":
    score += 1
  else:
    break
print("Score:", score)
```

7. Temperature Check

```python
while True:
  temp = float(input("Temperature: "))
  if temp > -5:
    print("Warning")
    break
  else:
    print("Normal")
```

8. Parking Lot

```python
spaces = 10
while spaces > 0:
  input("Car entered")
  spaces -= 1
print("Parking Full")
```

9. Toll Booth

```python
count = 0
while True:
  v = input("Enter vehicle or stop: ")
  if v == "stop":
    break
  count += 1
print(count)
```

10. Shopping Budget

```python
budget = float(input("Budget: "))
while budget > 0:
  price = float(input("Price: "))
  budget -= price
print("Budget Exhausted")
```