

### **Super-short memory box**

- Keywords = special reserved words.
- Identifiers = names (variables, functions, classes).
- Variables = names with values.
- Types = int, float, str, bool.
- input() string data hai; int()/float()/str() se type badlo; print() se dikhado.

### **10 tiny code snippets**

- Greeting:
  - name = input("Name? "); print("Hello", name).
- Sum of two numbers:
  - a = int(input()); b = int(input()); print(a + b).
- Join words:
  - w1 = input(); w2 = input(); print(w1 + " " + w2).
- Age after 10:
  - age = int(input()); print(age + 10).
- Bool demo:
  - is\_cool = True; print(is\_cool).
- Cast demo:
  - s = "5"; print(int(s) + 2).
- Float to int:
  - f = 2.9; print(int(f)).

## 20+ beginner mini-project ideas

Har idea me bas variables, input/output, data types, casting, aur thoda logic ka istemal hoga — bilkul starter friendly. Inme se bahut se examples beginners ke project lists me common hote hain, jo practice ke liye perfect hain.

### 1. Simple Calculator

- User se 2 numbers aur operation (+, -, \*, /) lo; result print karo.

### 2. Unit Converter Pack

- a) KM  $\leftrightarrow$  Mi, b) M  $\leftrightarrow$  CM (menu-based).

### 3. Age in Days/Hours

- Age (years) lo; days = years  $\times$  365; hours = days  $\times$  24 print karo.

### 4. Simple Interest

- P, R, T input lo; SI =  $P \times R \times T / 100$  print karo.

### 5. Percentage & Grade

- 5 subject marks lo; percent calc karo; grade A/B/C rules se print karo.

### 6. Even/Odd Checker

- Number lo; n % 2 se even/odd print karo.

### 7. Max of Two

- Do numbers lo; bada kaun hai print karo (if use).

### 8. Max of Three

- Teen numbers lo; sabse bada print karo.

### 9. Simple Login Mock

- Correct username/password hardcode; input se match karke “Login Success/Fail”.

### 10. Name Initials

- Full name lo; split karke initials print karo (A.B.C.).

### 11. Word Length Counter

- Ek sentence lo; len(sentence) aur har word ki length print karo.

### 12. Currency Split

- Amount lo; 2000/500/200/100 notes count nikaalo (integer division/remainder).

#### 13. Time Converter

- Total minutes input lo; hours =  $m // 60$ , minutes =  $m \% 60$  print karo.

#### 14. Simple Billing

- Item price aur quantity lo; subtotal, tax%, total print karo.

#### 15. Triangle Area (base-height)

- base, height lo; area =  $0.5 \times b \times h$  print karo.

#### 16. Rectangle Perimeter/Area

- L, W lo; perimeter =  $2(L+W)$ ; area =  $L \times W$  print karo.

#### 17. Circle Calculator

- r lo; area =  $3.14159 \times r \times r$ ; circumference =  $2 \times 3.14159 \times r$ .

#### 18. BMI Calculator

- weight(kg), height(m) lo; BMI =  $w / (h^2)$ ; category print karo.

#### 19. Mad Libs Story

- Blanks ke liye words input lo; string template me fill karke funny story print.

#### 20. Simple Contact Card

- Name, phone, city input; formatted “contact card” print karo.