**Numerical Example of FP Estimation:**

**Given Data:**

* **External Inputs (EI)**:
  + 10 low complexity inputs
  + 5 average complexity inputs

**External Outputs (EO)**:

* 4 low complexity outputs
* 3 high complexity outputs

 **Internal Logical Files (ILF)**:

* 2 average complexity files

 **External Interface Files (EIF)**:

* 3 low complexity files

 **External Queries (EQ)**:

* 6 average complexity queries
* **Step 1: Weighting Components**
* The complexity weight table for each type of component is:

| **Component Type** | **Low** | **Average** | **High** |
| --- | --- | --- | --- |
| External Inputs (EI) | 3 | 4 | 6 |
| External Outputs (EO) | 4 | 5 | 7 |
| Internal Logical Files (ILF) | 7 | 10 | 15 |
| External Interface Files (EIF) | 5 | 7 | 10 |
| External Queries (EQ) | 3 | 4 | 6 |

Using this table, calculate the **Unadjusted Function Points (UFP)**:

* **EI**:
  + 10 low complexity inputs = 10×3=3010 \times 3 = 3010×3=30
  + 5 average complexity inputs = 5×4=205 \times 4 = 205×4=20

**Total for EI** = 30 + 20 = 50

 **EO**:

* 4 low complexity outputs = 4×4=164 \times 4 = 164×4=16
* 3 high complexity outputs = 3×7=213 \times 7 = 213×7=21

**Total for EO** = 16 + 21 = 37

 **ILF**:

* 2 average complexity files = 2×10=202 \times 10 = 202×10=20

**Total for ILF** = 20

 **EIF**:

* 3 low complexity files = 3×5=153 \times 5 = 153×5=15

**Total for EIF** = 15

* **EQ**:
  + 6 average complexity queries = 6×4=246 \times 4 = 246×4=24

**Total for EQ** = 24

**Step 2: Calculate Unadjusted Function Points (UFP)**

Now, sum up the totals for all components to get the UFP:

UFP=50 (EI)+37 (EO)+20 (ILF)+15 (EIF)+24 (EQ)=146

**Step 3: Value Adjustment Factor (VAF)**

Suppose the system has the following degree of influence for the 14 general system characteristics, each rated from 0 to 5:

* Total degree of influence = 35

Now, calculate the VAF:

VAF=0.65+(0.01×35)=0.65+0.35=1.0

**Step 4: Calculate Final Function Points (FP)**

Now, calculate the final FP:

FP=UFP×VAF=146×1.0=146