

# Function Point Metric for Book Shop Automation System

## STEP 1: COMPUTE UFP

EI	EO	EQ	ILF	EIF
Category	Demand_list	Availability_status	Demand_db	
Book_title	Order_status	Request_field	Books_db	
Author_name	Avail_book_list	Sales_statistics	Inventory_db	
E-mail	Inventory_level	Freq_user_list	Sales_record	
Book_details	Rack_No.			
Price	Sales_receipt			
ISBN_no	Bill			
No_of_copies				
Publisher_address				
<b>EI=9</b>	<b>EO=7</b>	<b>EQ=3</b>	<b>ILF=4</b>	<b>EIF=0</b>

$$\begin{aligned} \text{UFP} &= (9*4) + (7*5) + (3*4) + (4*10) + (0*7) \\ &= 123 \end{aligned}$$

## STEP 2: REFINE UFP

EI		EO	
Category	3	Demand_list	7
Book_title	3	Order_status	4
Author_name	3	Avail_book_list	7
E-mail	3	Inventory_level	7
Book_details	6	Rack_No.	4
Price	3	Sales_receipt	4
ISBN_no	3	Bill	4
No_of_copies	3		
Publisher_address	6		
	<b>33</b>		<b>37</b>

EQ		ILF		EIF	
Avilability_status	6	Demand_db	15		
Request_field	3	Books_db	15		
Sales_statistics	6	Inventory_db	15		
Freq_user_list	6	Sales_record	15		
	<b>21</b>		<b>60</b>		<b>0</b>

$$\begin{aligned} \text{UFP} &= 33 + 37 + 21 + 60 + 0 \\ &= 151 \end{aligned}$$

### STEP 3: COMPUTE FP

1. Reliable backup and recovery	4
2. Complexity of Data Communication	4
3. Distributed Processing	3
4. Performance Criticality	3
5. Operational Environment	2
6. Online Data Entry	4
7. Multi Screen or Multi Operational Online Data Entry	2
8. Online Updation of ILF	5
9. Complexity of Inputs, outputs, files and inquiries	4
10. Complexity of Internal Processing	5
11. Code Reusability	3
12. Complexity of Installation	0
13. Multiple Sites Installation	0
14. Change Management and Ease of use	3
Total	42

#### Compute TCF

$$\begin{aligned}\text{TCF} &= 0.65 + 0.01 * \text{DI} \\ &= 0.65 + 0.42 \\ &= 1.07\end{aligned}$$

#### Compute FP

$$\begin{aligned}\text{FP} &= \text{UFP} * \text{TCF} \\ &= 151 * 1.07 \\ &= 161.57\end{aligned}$$