Name (Sap Id):	Kalpita Shankhdhar (60004210164) Akshata Sunil Dharmadhikari (60004220125) Prerna Sunil Jadhav (60004220127)
Class:	T. Y. B. Tech (Computer Engineering)
Course:	Software Engineering Laboratory
Course Code:	DJ19CEL601
Experiment No.:	06

FP ESTIMATION:

A. External Inputs (EI):
- i. Add Lawyer
- ii. Update Lawyer Information
- iii. Add Client
- iv. Update Client Information
- v. Add Case
- vi. Update Case Information

B. External Inquiries (EQ):
- i. Query Case Details
- ii. Query Client Information
- iii. Query Lawyer Schedule
- iv. Query Case Status
- v. Query Billing Information

C. Internal Logical Files (ILF):
- i. Lawyer Information
- ii. Client Information
- iii. Case Details
- iv. Billing Records
- v. Legal Document Templates

D. External Outputs (EO):
- i. Generate Case Report
- ii. Generate Legal Document
- iii. Generate Client Invoice
- iv. Generate Lawyer Billing Statement
- v. Generate Case Summary for Court Presentation

E. External Interface Files (EIF):
- i. Import Client Data
- ii. Export Case Data
- iii. Import Lawyer Schedule
- iv. Export Case Updates to Court System
- v. Import Billing Information from Accounting Software

Information Domain Value	Count (A)	Simple	Average (B)	Complex	Total (A x B)
External inputs	6	3	4	6	24
External enquiry	5	3	4	6	20
Internal Logical Files	5	7	10	15	50
External Outputs	5	4	5	7	25
External interface files	5	5	7	10	35
				Total:	154

Value Adjustment Factors:

1. Does the system require reliable backup and recovery?
   ➔ 3 - The system requires reliable backup and recovery as it deals with important transactions and user data.
2. Are specialized data communications required to transfer information to or from the application?
   ➔ 4 - Specialized data communications are required.
3. Are there distributed processing functions?
   ➔ 3 - The platform may require distributed processing functions to handle high volume transactions.
4. Is performance critical?
   ➔ 5 - Performance is critical as the platform needs to handle real-time transactions and user interactions.
5. Will the system run in an existing, heavily utilized operational environment?
   ➔ 0 - The platform is a new product with no existing operational environments.
6. Does the system require online data entry?
   ➔ 4 - The platform requires online data entry for various transactions and user interactions.
7. Does online data entry require the input transaction to be built over multiple operations?
   ➔ 3 - Some functionalities may require input transactions over multiple screens.
8. Are the ILFs updated online?
   ➔ 5 - The ILFs are updated online as the platform deals with real-time transactions.
9. Are the inputs, outputs, files, or inquiries complex?
   ➔ 2 - Most of the inputs, outputs, files, and inquiries are simple.
10. Is the internal processing complex?
    ➔ 2 - The internal processing is not complex as the platform focuses on user interactions and transactions.
11. Is the code designed to be reusable?
    ➔ 3 - The code can be reused over multiple functionalities with minor modifications.
12. Are conversion and installation included in the design?
    ➔ 3 - Conversion and installation are included in the design.

13. Is the system designed for multiple installations in different organizations?
    ➔ 4 - The system is designed to be easily installed in different organizations.
14. Is the application designed to facilitate change and ease of use by the user?
    ➔ 5 - The application is designed to be user-friendly and easy to use.

Hence **Σ (Fi) = 46**

The estimated number of FP is derived:

FP estimated = count-total x [0.65 + 0.01 x Σ (Fi)]

= 154 x [0.65 + 0.01 x 46]

= 154 x 1.11

= 170.94

Therefore, **FP estimated is 170.94 pm**

WORD-BREAKDOWN STRUCTURE:

Task ID	Task Description	Estimated Person-Hours	Who Will Do the Job	Resources
1.	Requirement Analysis	40	Business Analyst	Requirements Documents
2.	System Design	60	System Architect	Design Tools, Software
3.	Database Design	40	Database Designer	Database Management System
4.	UI/UX Design	40	UI/UX Designer	Design Tools
5.	Lawyer Management Module Development	150	Software Developers	Development Tools, IDE
6.	Client Management Module Development	120	Software Developers	Development Tools, IDE
7.	Case Management Module Development	130	Software Developers	Development Tools, IDE
8.	Billing and Invoicing Module Development	100	Software Developers	Development Tools, IDE
9.	Document Management Module Development	90	Software Developers	Development Tools, IDE
10.	Testing and Quality Assurance	80	QA Team	Testing Tools, Test Cases
11.	Integration and System Testing	60	QA Team	Testing Tools, Test Cases
12.	User Acceptance Testing	40	End Users	Test Cases
13.	Documentation and User Manual Preparation	60	Technical Writers	Documentation Tools
14.	Training and User Support	40	Training Team	Training Materials
15.	Deployment and Go-Live	40	Deployment Team	Deployment Tools
16.	Project Management and Coordination	100	Project Manager	Project Management Tools

GANTT TIMELINE CHART: