

How to Classify Software Applications Components (Complete Guide with Examples)

Understanding how to classify software applications components is essential for students, developers, IT professionals, and system designers. Proper classification helps in system design, maintenance, security planning, licensing decisions, and software engineering education.

Main Classification of Software in Computer Systems:

1. System Software

- Manages hardware and system resources
- Examples: Windows, Linux, macOS

2. Application Software

- Performs user-specific tasks
- Examples: MS Word, Chrome, Photoshop

3. Programming Software

- Used to develop software
- Examples: VS Code, Eclipse, GCC

Components of a Software Application:

- User Interface (UI) Component: Buttons, forms, menus
- Business Logic Component: Core processing rules, calculations
- Data Access Component: Connects software to databases
- Database Component: MySQL, PostgreSQL, MongoDB
- Integration Component: APIs, third-party connections
- Security Component: Authentication, Authorization, Encryption
- Configuration Component: Settings and environment files

Application Software Classification:

- Productivity Software: MS Office, Google Docs
- Business Software: ERP, CRM
- Educational Software: Moodle, Duolingo
- Multimedia Software: Photoshop, VLC
- Communication Software: Zoom, Slack
- Entertainment Software: Steam, Netflix app

7 Categories of Software Applications (Application Domains):

1. System Software Domain
2. Business Domain
3. Engineering & Scientific Domain
4. Embedded Software Domain
5. Web Applications Domain
6. AI & Data Science Domain
7. Mobile Applications Domain

Classification of Software Based on License:

- Open Source: Linux, WordPress
- Proprietary: Windows, Adobe products
- Freeware: Skype
- Shareware: WinRAR
- SaaS: Salesforce