**List of software require in IBCS and NDCI**

| **List of software** | **Application area** | **Justification** | **License** | **Environment** |
| --- | --- | --- | --- | --- |
| Visual Studio 2022 | eCheque Web API | Integrated Development Environment | Community Version, Free | Development |
| Microsoft SQL Server Management Studio 18 | eCheque Web API | SQL Server Administration | Microsoft, Free | Development, Production |
| DOT NET core 6.0. | eCheque Web API | Dot net core Compiler | Opensource | Development |
| Byte-Scoute 11.8.1.2082 | eCheque Web API | MICR to OCR Convertor | Trail Version | Demo |
| IIS server. | eCheque Web API | Web Hosting | Server OS, Licensed | Production |
| Swagger | eCheque Web API | API Viewer | Open-API | Testing |
| Postman | eCheque Web API | API Viewer | Opensource | Testing |
| Android Studio | eCheque Mobile App | Integrated Development Environment | Opensource | Development |
| Flutter SDK: Flutter SDK | eCheque Mobile App | Compiler Dart and flutter code. | Opensource | Development |
| Visual Studio 2022 | eCheque Mobile App | Integrated Development Environment | Community Version, Free | Development |
| X-Code | eCheque Mobile App | Setting up an iOS development environment. | Free | Development |
| VS-Code Editor | eCheque Mobile App | Integrated Development Environment | Opensource | Development |
| Azure Data Studio | eCheque Mobile App | SQL query run | Community Version, Free | Development |
| Docker | eCheque Mobile App | Container for deployment environment | Opensource | Development, Production |
| UV pattern matching | UV pattern matching | Pixel matching, Python Libraries | Free | Production |
| PyCharm | UV pattern matching | Integrated Development Environment | Opensource | Production |
| Python IDLE | UV pattern matching | Integrated Development Environment | Opensource | Production |
| time | UV pattern matching | displaying time, Python Libraries | Opensource | Production |
| pixel match.contrib.PIL | UV pattern matching | pixel matching, Python Libraries | Opensource | Production |
| BytesIO | UV pattern matching | Change blob to images, Python Libraries | Opensource | Production |
| multiprocessing | UV pattern matching | Multithreading, Python Libraries | Opensource | Production |
| OS | UV pattern matching | getting cores of the system, Python Libraries | Opensource | Production |
| PIL | UV pattern matching | pillow image, Python Libraries | Opensource | Production |
| Tkinter | UV pattern matching | Integrated Development Environment | Opensource | Development |
| pyodbc | UV pattern matching | SQL SERVER Connection, Python Libraries | Opensource | Production |
| OpenSSL | QR Code | RSA & ECC test certificate creation tool | Opensource | Testing |
| Zxing API. | QR Code | QR code creation tool | Opensource | Testing |
| ConfuserEx | Obfuscation | Executable file Obfuscation | Opensource | Production |
| WinSCP | SFTP | SFTP | Opensource | Production |
| Tesseract | MICR to OCR & Image recognition Artificial Intelligence Library | The optical character recognition engine | Opensource | Production |
| Azure Dev Ops | Source Code Repository | TFS upgrade | Community Version, Free | Production |
| Airdroid Client & Server | Mobile Screen Sharing Tool | Mobile to Laptop Casting | Free | Demo |
| WebRTC | Web View | Web View | Opensource | Production |
| Webcam easy JS | Web View | Web View | Opensource | Production |
| Enter-safe PKI manager | Dongle Administrator | Dongle Administrator | Feitian, Licensed | Production |
| MS Visio | Designing Tool | Designing tool | Microsoft, License | Development |
| Google Chrome | Browsers | Browser | Free | Production |
| Safari | Browsers | Browser | Opensource | Production |
| WhatsApp for Windows | Communication | for exchange of APK & IPA | Free | Development |
| WinRAR | Compression | Compression | Free | Testing |
| Sharp-zip-lib | Compression | Compression | Opensource | Production |
| Adobe Acrobat Reader | PDF Reader | PDF reader | Free | Testing |
| Queens\_Imagecontrol | NACHCAP, for image display | Image display library | Opensource | Production |