

ADVANCED EXCEL TOOLKIT

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ABSTRACT

Advanced excel tool kit is a bunch of applications which is highly required in day today life. It provides customized functions which helps the user to do their business operations easily. The applications in the toolkit are based on automation terminology. The main objective is non-technical users can also handle the application easily, without any confusion. The advanced excel toolkit includes auto typer ,customized online typing data, data extraction, expense manger , which reduces the expenditure of overall system as well as high efficiency is obtained.

INTRODUCTION:

Microsoft Excel is spreadsheet developed by Microsoft for Windows, macOS, Android and IOS. It features calculation, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications. It has been a very widely applied spreadsheet for these platforms, especially since version 5 in 1993, and it has replaced Lotus 1-2-3 as the industry standard for spreadsheets. Excel forms part of Microsoft Office.

Microsoft Excel has the basic features of all spreadsheets, using a grid of cells arranged in numbered rows and letter-named columns to organize data manipulations like arithmetic operations. It has a battery of supplied functions to answer statistical, engineering and financial needs. In addition, it can display data as line graphs, histograms and charts, and with a very limited three-dimensional graphical display. It allows sectioning of data to view its dependencies on various factors for different perspectives (using pivot tables and the scenario manager).It has a programming aspect, Visual Basic for Applications, allowing the user to employ a wide variety of numerical methods, for example, for solving differential equations of mathematical physics, and then reporting the results back to the spreadsheet.

MACRO PROGRAMMING:VBA PROGRAMMING

The Windows version of Excel supports programming through Microsoft's Visual Basic for Applications (VBA), which is a dialect of Visual Basic. Programming with VBA allows spreadsheet manipulation that is awkward or impossible with standard spreadsheet techniques. Programmers may write code directly using the Visual Basic Editor (VBE), which includes a window for writing code, debugging code, and code module organization environment. The user can implement numerical methods as well as automating tasks such as formatting or data organization in VBA and guide the calculation using any desired intermediate results reported back to the spreadsheet.

A common and easy way to generate VBA code is by using the Macro Recorder. The Macro Recorder records actions of the user and generates VBA code in the form of a macro. These actions can then be repeated automatically by running the macro. The macros can also be linked to different trigger types like keyboard shortcuts, a command button or a graphic. The actions in the macro can be executed from these trigger types or from the generic toolbar options. The VBA code of the macro can also be edited in the VBE. Certain features such as loop functions and screen prompts by their own properties, and some graphical display items, cannot be recorded, but must be entered into the VBA module directly by the programmer. Advanced users can employ user prompts to create an interactive program, or react to events such as sheets being loaded or changed.

• LIMITATIONS OF EXISTING SYSTEM:

Excel is already predefined interface. Excel contains inbuilt functions like logical functions, reasoning functions and some non-functional formulas. These are useful to some extent and these are totally manual. Beyond that if we want to use the excel spreadsheet it is very complex for the beginners. So to work on excel based programs there is

always need of skilled person. This is all about the existing excel applications and tools which having the complexity while using it in daily life.

- **SCOPE OF PROPOSED SYSTEM:**

- The proposed system will be the Advance Excel Toolkit (**AET**) for the commercial as well as general purpose applications.
- The system will be designed to provide an automated and efficient way to handle the excel spreadsheets for multiple uses.

The AET contains different tools with unique functionalities such as

- Auto typing in data entry sector
- Customized online form filling
- Library expense management
- Share market analysis
- Project management

These tools are used to provide a better and easy interface to the users for their commercial and general uses in a better way. More specifically, this system is designed to allow a user to Manage the accounting transactions, Extracting data from specific websites for analysis Automated data entry application to reduce the time and expenditure Design and control the flow of project to meet with deadlines AET is a convenient and more preferable system that will be widely used with minimum system requirements as compare to any other applications.

SOFTWARE REQUIREMENTS SPECIFICATION

- **FUNCTIONAL REQUIREMENTS:**

Advance Excel toolkit (**AET**) with different applications has the following functional requirements:

1. AUTO TYPER :

- The large content should be typed in minimum time.
- The form with several Fields should be filled in minimum time i.e. less time to be taken than the manual typing.
- The design should be very simple and easy to handle.
- The accuracy should be more.
- Authentication should be available.

2. LIBRARY EXPENSE MANAGEMENT:

- The application must provide the facility to inward and outward transaction.
- It should generate the overall reports of expenses e.g. Total monthly expense and income, remaining amount.

3. CUSTOMIZED AUTOMATED TYPING APPLICATION

It is used for online data entry. (**E-sky way**)

- All data has to be typed as given input file.
- In "Data-1" file, "2" symbolizes name of product as "XYZ" from "Products" file and simultaneously you have to type its Rate.
- Then you have to type Quantity as "22" and Discount as "2.3%"
- Similarly you have to type these data for product numbers 3, 1, 6, 4.
- Calculate Cost of Products as per given instruction.

4. SHARE MARKET ANALYSIS APPLICATION

- Instant stock price must be retrieved from stock - exchange site only by single click.
- The stock value should be stored for future analysis.
- It should not be complex to use.

5. PROJECT MANAGEMENT

- It should provide a graphical view of project plan.
- Intimation of deadlines.
- It should provide status of progress
- Critical issue should be highlighted.

- **NONFUNCTIONAL REQUIREMENTS:**

AET should provide the following nonfunctional requirements

- Usability: the tool should be easy to use
- Reliability: the system should be reliable for the data extraction.
- Correctness: the reports and calculation should be correct.
- Appearance: It should provide better GUI.
- Availability: able to be used when needed, often related to uptime.
- Security: accessible and usable only in authorized ways by authorized users.
- Privacy: protecting personal information and undesired access to personal space.
- Usefulness: system should meet relevant needs.
- Efficiency: the system should efficient regarding to time and cost.

ADVANTAGES

- The AET is beneficial in commercial are as well as for general purpose.
- The AET is used to maintain the library Expense.
- The AET reduces Cost
- Less Time Consumption

As compared to manual typing system large amount of time required.(Approximately 6 to 7 days for one assignment).But software can do this work in very less time (approximately 7 hours for one assignment)

- **Maximum Accuracy**

In manual system maintain accuracy is very hard work. Accuracy decreases as the time passes where as in automatic system accuracy is level is high. And the level of accuracy is maintained throughout the assignment

DISADVANTAGES

- The main disadvantage is it restrict to some extent.
- Knowledge of basic excel is necessary to use application.
- We cannot do any changes at runtime changes.

REFERENCES

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