INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

**ISSN: 2454-132X**
**Impact factor: 4.295**
***(Volume 4, Issue 5)***
Available online at: www.ijariit.com

# Python application– An efficient and effective substitute for human assistant to a busy manager

*Padmaja*
*chradhakumari@sssihl.edu.in*
*Sri Sathya Sai Institute of Higher Learning, Anantapur, Andhra Pradesh*

*Ch. Radhakumari*
*radhakumari_c@yahoo.com*
*Sri Sathya Sai Institute of Higher Learning, Anantapur, Andhra Pradesh*

## ABSTRACT

***Python is a programming language that works more quickly and integrates the systems more effectively. Today, Python ranks 5th most popular language, according to TIOBE index. Considering the simplicity of python as a programming language, the value of python is growing across industries and projects. Skilled Python programmers are in great demand everywhere. In the light of the increase in demand for python program, the current paper depicts the formulation of a unique case of management reflecting how a manager can be assisted with a python program replacing human assistance. The paper highlights that human replacement by python software program brings in value addition to the organizations or businesses in the form of an increase in efficiency, effectiveness, and decrease in costs.***

***Keywords***— *Python, Replacement, Manager, Effectiveness, Efficiency*

## 1. INTRODUCTION

Python is a programming language that works more quickly and integrates the systems more effectively. Today, Python ranks 5th most popular language, according to TIOBE index. While some developers believe that Python is for kids, and PHP or C is for real men, the value of Python keeps growing across industries and projects, and skilled Python programmers are in a very high demand everywhere.

Python is a scripting language like PHP, Perl, Ruby and many more. It can be used for web programming (Django, Zope, Google App Engine, and much more) and for desktop applications (Blender 3D, or even for games pygame). Python started as a scripting language for Linux like Perl but less cryptic and now is available on Windows too. Desktop GUI APIs like GTK have their Python implementations. Python-based web frameworks like Django are preferred by many over PHP et al. for web applications.

In the light of the increase in value for python program across industries, the current paper depicts the formulation of a unique case of management reflecting how a manager can be assisted with python program replacing human assistance. The paper highlights that human replacement by python brings in value addition to the output in terms of increase in efficiency, effectiveness, and decrease in costs.

## 2. THE OBJECTIVE OF THE RESEARCH PAPER

The current research is undertaken with the intention of highlighting the applicatory ability of python programming in the field of management. With the help of the python program, the paper aims at creating an efficient and cost-effective assistant for a busy manager in a pharmaceutical store, as a replacement for human support.

## 3. THE METHODOLOGY APPLIED FOR ACHIEVING THE OBJECTIVE

To achieve the above-mentioned objective, a pharmaceutical store is selected on a simulated scenario wherein the basic medicines needed are stored. For our simulation, we have assumed that the stores have stocks of medicines such as Paracetamol, Dolo 650, Combiflam, Coldact, Ranitidine, Diegene, Gelusile, Pudinara, Mefthal spas. A program is then coded using Python software. Selecting spyder 3.6 version as a platform for writing and executing the Python code for the above-simulated scenario, various steps that are followed in writing the Python code are described below, in a step by step manner:

**Step 1: Open spyder 3.6 software to start coding**


**Fig. 1: spyder software window**

**Step 2: Selection of an operation**
An operation is selected from different operations that are displayed on a white console, as is depicted below:

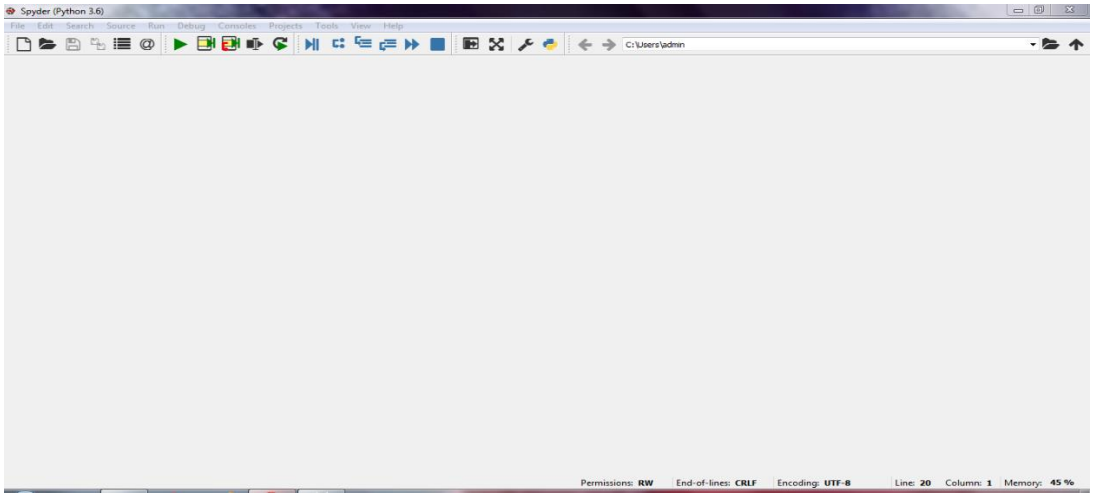


**Fig. 2: Operation selection window**

**Step 3: Open a new file for coding**
By going to option 'File' in the left side top corner and clicking on the option 'open new file', one can open a new file for coding, as is indicated below.

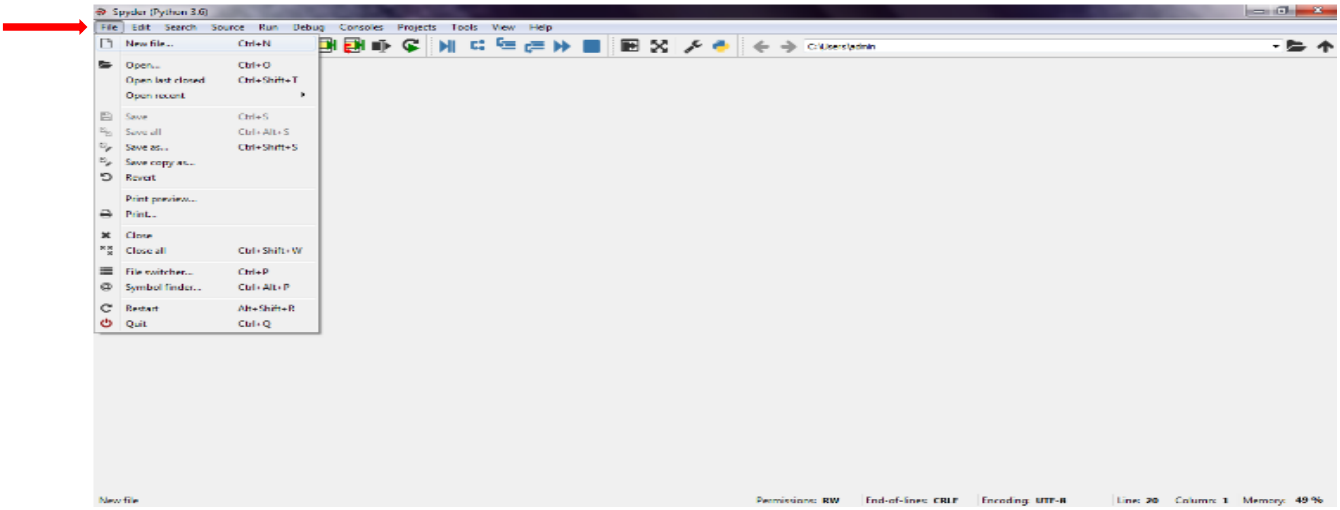


**Fig. 3: Open new file window**

**Step 4: Writing the code in the file**
The variables used in the code are explained below.

- **Lp**: lp is the variable used to leave the page if the customer has finished buying medicines by typing the alphabet 'e'. Initially, the variable is assigned with the value '0'.
- **Choice**: the choice is the variable used to store the input given by the customer to specify the problem occurred.
- **medicine**: medicine is the variable used to store the value specified by the customer for the required medicine.
- **n**: n is the variable used to store the number of tablets specified by the customer.

- **total**: Total is the variable used to store the value of particular medicine.
- **bill**: It is the variable used to represent the total bill of the customer. Initially, the customer has not bought any medicine and so it is assigned with the value '0'. It gives the final bill for the customer.

```
cs="'''Python as a manager of Pharmaceutical stores'''"
print(cs.center(20,'#'))
bill=0
lp=0
while (lp != "e"):
    choice=input("Press 'f' fever medicines\nPress 'c' for cold medicines\nPress 'i'for indigestion\nPress 'sb' for stomach burning\nPress 'sp' for stomach pain\n")
    if choice == 'f':
        print("Body pains and high fever:\n(dl) Dolo 650-Rs.3\n(pc)Paracetomol-Rs.1\n(cf)Combiflam-Rs.4")
        medicine=input("Select which medicine you want\n")
        if medicine=='dl':
            n = int(input("Enter the number of tablets : "))
            total= n*3
            bill=bill+total
            print("Your Bill is RS.",bill)
            print("press 'enter' to continue")
            print("press 'e' to exit")
            lp=input()
        if medicine=='pc':
            n = int(input("Enter the number of tablets : "))
            total= n*1
            bill=bill+total
            print("Your Bill is RS.",bill)
            print("press 'enter' to continue")
            print("press 'e' to exit")
            lp=input()
        if medicine=='cf':
            n = int(input("Enter the number of tablets : "))
            total= n*4
            bill=bill+total
            print("Your Bill is RS.",bill)
            print("press 'enter' to continue")
            print("press 'e' to exit")
            lp=input()
    if choice == 'c':
        print("Cough and cold: coldact-Rs.5.00")
        n = int(input("Enter the number of tablets : "))
        total= n*5
        bill=bill+total
        print("Your Bill is RS.",bill)
        print("press 'enter' to continue")
        print("press 'e' to exit")
        lp=input()
    if choice == 'i':
        print("Indigestion: \n(rt)Ranitidine-Rs.0.50\n(dt)Digine tablets-Rs.1.5\n(gl)Gelusil-Rs.50")
        medicine=input("Select which medicine you want\n")
        if medicine=='rt':
            n = int(input("Enter the number of tablets : "))
            total= n*0.5
            bill=bill+total
            print("Your Bill is RS.",bill)
            print("press 'enter' to continue")
            print("press 'e' to exit")
            lp=input()
        if medicine=='dt':
            n = int(input("Enter the number of tablets : "))
            total= n*1.5
            bill=bill+total
            print("Your Bill is RS.",bill)
            print("press 'enter' to continue")
            print("press 'e' to exit")
            lp=input()
        if medicine=='gl':
            n = int(input("Enter the number of bottles : "))
            total= n*50
            bill=bill+total
            print("Your Bill is RS.",bill)
            print("press 'enter' to continue")
            print("press 'e' to exit")
            lp=input()
    if choice == 'sb':
        print("Stomach Burning: Pudinara-Rs.2.00")
        n = int(input("Enter the number of tablets : "))
        total= n*2
        bill=bill+total
        print("Your Bill is RS.",bill)
        print("press 'enter' to continue")
        print("press 'e' to exit")
        lp=input()
    if choice == 'sp':
        print("Stomach Pain: Mefthalspas-Rs.2.00")
        n = int(input("Enter the number of tablets : "))
        total= n*2
        bill=bill+total
        print("Your Bill is RS.",bill)
        print("press 'enter' to continue")
        print("press 'e' to exit")
        lp=input()
```

**Fig. 4: Code**

**Step 5: Saving the file with any name but having an extension '.py', as shown below:**

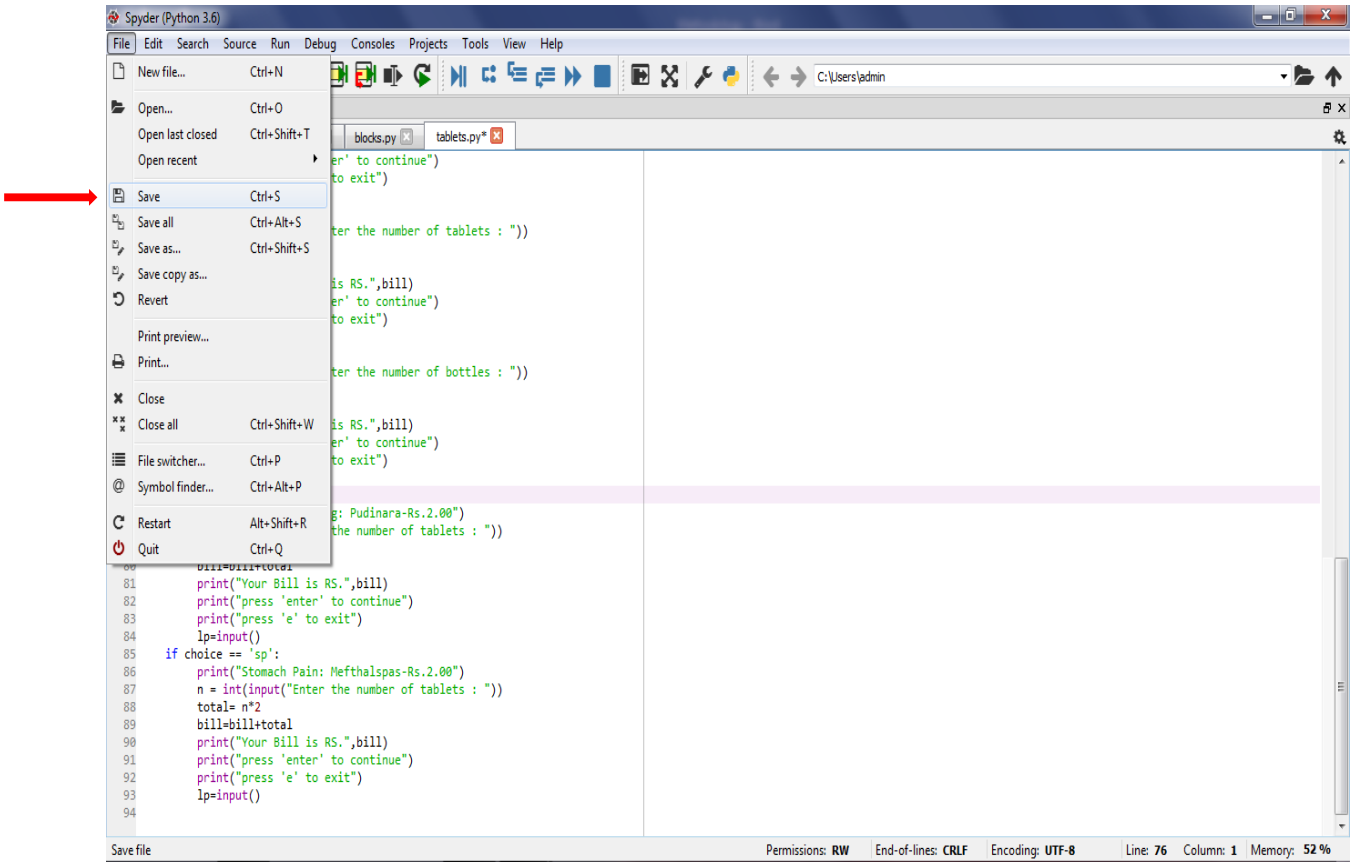


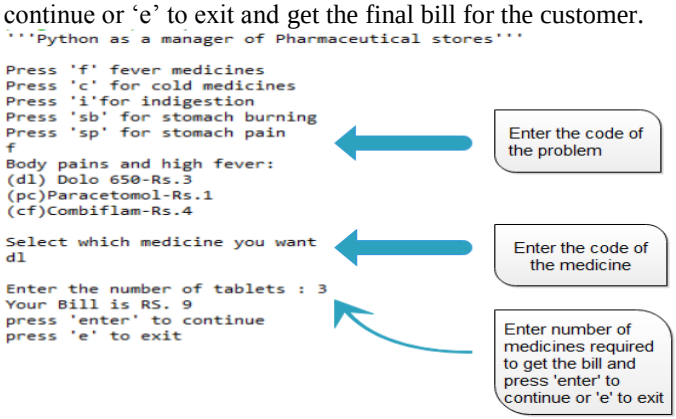

**Fig. 5: Saving the file**

On completion of coding the file should be saved and the program should be run either using the option 'F5' or directly clicking the option ▶ (Run File).

## 4. THE OUTCOME OF RESEARCH WORK

The outcome that is obtained by executing the above-written program is described below:
When the program is executed it gives various options like fever, cold, indigestion, stomach burning, stomach pain and so on where f, c, i, sb, sp, respectively are the symbols used to represent the problems.

Once we select the problem the program gives us a chance to select the required medicine for the problem. It also displays the cost of the medicine. Next, it asks us to give the required number of medicines. Then it displays the bill and if we still need some more medicines we can press 'enter' to continue or 'e' to exit and get the final bill for the customer.




```
Press 'f' fever medicines
Press 'c' for cold medicines
Press 'i'for indigestion
Press 'sb' for stomach burning
Press 'sp' for stomach pain
i
Indigestion:
(rt)Ranitidine-Rs.0.50
(dt)Digine tablets-Rs.1.5
(gl)Gelusil-Rs.50

Select which medicine you want
gl

Enter the number of bottles : 2
Your Bill is RS. 109
press 'enter' to continue
press 'e' to exit

e
```

**Fig. 6: Outcome of research work**

## 5. COMPETITIVE ADVANTAGE OF THE ABOVE-CODED PROGRAM

The competitive advantages of implementing the above program are described below:

- **Scalability:** Implementation of the above program is scalable to any size.
- **Cost and time effective:** If implemented in any pharmaceutical stores, the outcome will prove to be cost and time effective as the program can be a perfect replacement for a human assistant in the stores. Cost saving can be equal to the salary and other perks paid to a human assistant while time can be saved in the elimination of manual entry in the bill and finalization of the bill amount.
- **User-friendly:** As the program is user-friendly the end user does not require any additional training for operating the system where the programme is installed.

## 6. INFRASTRUCTURE REQUIREMENT FOR IMPLEMENTATION OF THE PROGRAMME

The installation of the coded program is cost effective. To enjoy the pleasure of having the most efficient and competitive technology assistant in the place of a human assistant, one only requires a dedicated computer with basic configuration along with any one of the common operating systems including Python software, installed in it. The program can be executed with the above code which can be used by the customers for their benefit.

## 7. THE UNIQUENESS OF PYTHON AS A PROGRAMMING LANGUAGE

The following description highlights the uniqueness of Python as a programming language:

- **Easily understandable and User-friendly:** Python is easily understandable and user-friendly coding platform. It is very simple for a person to even without the background knowledge of any coding language, to learn to write python coding.
- **Python provides a clear interface:** Python is mainly used to boost the speed of a software development process by providing an easy to learn and implement a readable and clear interface for developers and those who maintain the project.
- **Devoid of complex coding rules:** Python coding is away from complex coding rules for the syntaxes used. As a high-level programming language, it makes a strong case for readable code. In addition to supporting object-oriented programming, it also supports imperative and functional programming. The only restriction is 'indentation' in the program which is very important to follow.
- **Python is a multi-paradigm language:** Python is structure supportive and offers 'meta-programming' and 'logic programming,' as well as 'magic methods.'
- **Gains in productivity and lower maintenance costs:** Python usage results it can be used to witness immediate gains in productivity and lower maintenance costs. Python program can be a more than a perfect substitute for a human being and proves to be more effective and efficient simultaneously contributing to reduced costs of operation.

## 8. CONCLUSIONS

The current study proved that corporate organizations and other start-up companies that wish to optimize on costs and time, can safely and reliably depend on Python as their coding tool to customize programs for various managerial issues. Python has a better and easier syntax than Java and has a better programming ideology -> Type less, do more.

Generally, Python code is 70% shorter than the same in Java.

## 9. REFERENCES

[1] (2017, October 3). Retrieved from A Medium Corporation[US]: https://medium.com
[2] C#Corner. (2013, September 2). Retrieved from https://www.c-sharpcorner.com
[3] Davinci Coders. (2016, October 31). Retrieved from https://www.davinciinstitute.com: https://davincicoders.com
[4] Geeks for Geeks. (n.d.). Retrieved from https://www.geeksforgeeks.org
[5] IPSR solutions ltd. (2017, September 10). Retrieved from https://www.ipsr.edu.in
[6] Python Software Foundation [US]. (1997). Retrieved from https://www.python.org
[7] Stack Exchange. (2017, May 23). Retrieved from https://softwareengineering.stackexchange.com