CHAPTER: 5

DEVELOPMENT OF USER-FRIENDLY SOFTWARE TO IDENTIFY CLIMBING PLANTS OF GUJARAT

5.1 Introduction to computer program

Computer Aided Identification (CAI) systems provide users with the resources to relate morpho-anatomic observations with taxa names and to subsequently access other knowledge about the plants. They have the ability to manage descriptive data and make identifications through interactive easy keys. They are essential for both biodiversity information generators and users. “Climbers” is one of the most user-friendly tool for the identification of climbing plants of Gujarat.

5.2 System analysis

“Climbers” is a state-of-the-art management system for storage, edition and desk-top application based tool for plant identification. It is equipped an easy identification key to identify the climbing plants of Gujarat. “Climbers” does not require any special computer skills. It is a powerful program with a user-friendly and intuitive interface aimed at professional taxonomists as well as amateur botanists who merely want to identify specimens using a ready-made application. “Climbers” aid taxonomists, teachers, students and other researchers in identification and accessing the useful data on a few clicks on computer mouse.
5.3 System design
Database has been stored in Microsoft Office Access. However, the actual program is designed using Visual Basic.

5.4 System output

![Figure 10: Home page of “climbers”](image)

When the users reach to the home page of “Climbers” the program offers a ask the question with two options. As per the user’s option it leads to either a name or another question again with options. The user as to continue the exercise till he/she reaches to the name of the specimen in hand. In other words, it is merely an e-version of conventional artificial bracketed identification keys prepared exclusively for the climbing plants of Gujarat. The key was prepared largely by employing vegetative and/or easily available characters. The user can use a glossary made available at every step, if any confusion arises in the process of identification. By clicking the matching
characters users can identify their plant samples by a few clicks only. In addition to identification, it will also provide description, information on distribution, medicinal/economic uses and flowering and fruiting seasons, photographs, (2000 coloured digital images captured personally during the present study) for any species on a few clicks.

![Figure 11: Result page of “climbers”](image)

### 5.5 System accessibility

Since it is desktop application based software, it can be accessed by any end-user through a compact disk (CD).