

COLLECTION OF COCONUT DISEASES DATABASES USING ASP.NET

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ABSTRACT

Coconut (*Cocos nucifera*) is an important multipurpose perennial oil crop of humid tropics. This crop is highly prone to various diseases cost by microbial agent such as fungi, bacteria and viruses. These diseases make the trees weak and leads to reduction in yield continuously till the crop completely dies. Once the diseases starts proper, remedial measures should be taken well in time otherwise the trees may not recover and die ultimately, the loss in yield is severe and the economic loss is very great the farmer losses income completely and this in turn is a national loss. The database of various diseases may be used by the researchers and farmers do devise an appropriate and effective control measures to save the crops from damages or complete death.

Keywords: Coconut diseases, ASP.NET

1. INTRODUCTION

The Coconut (*Cocos nucifera*) is an important member of the family Arecaceae (palm family). The Coconut palm is affected by a number of diseases, some of which are lethal while others gradually reduce the vigor of the palm causing severe loss in yield (<http://coconutboard.nic.in/>). Some of the important coconut diseases are bacterial disease, fungal diseases and viral diseases (Arundell & Straw, 2001; Arnold, 1967; Kloepper et al., 1992 and Summanwar et al., 1969). The major insect pests of the coconut palm are Rhinoceros beetle, Red palm weevil, Black headed caterpillar, Cockchafer beetle and Coreid bug (<http://coconutboard.nic.in/>; Doane, 1913; Gressit, 1953 and <http://agritech.tnau.ac.in/>- TNAU Agritech portal). This database gives information about the major symptoms and control measures of these pests and diseases. The present data include information on ASP.NET. ASP.NET is a web application framework developed and marketed by Microsoft to allow programmers to build dynamic web sites, web applications and web services. It was first released in January 2002 with version 1.0 of the .NET Framework, and is the successor to Microsoft's Active Server Pages (ASP) technology. ASP.NET is built on the Common Language Runtime (CLR), allowing programmers to write ASP.NET code using any supported .NET language. The ASP.NET SOAP extension framework makes data useful for rational use of Tamil Nadu area farmers. Coconut Database (diseases, insects) has been developed and the concern software is available under custody. Present database is available at ASP.NET. Coconut Database, web consultation interfaces have been created to allow quick and complex queries, and user-friendly results representation.

2. DATABASE INTERFASE, DESIGN AND IMPLEMENTATION

Color is an indispensable tool for successful user interface and web design. Design patterns are recurring solutions to software design problems you find again and again in real-world application development (<http://coconutboard.nic.in/>). Patterns are about design and interaction of objects, as well as providing a communication platform concerning elegant, reusable solutions to commonly encountered programming challenges. The Gang of Four (GoF) patterns are generally considered the foundation for all other patterns. They are categorized in three groups: Creational, Structural, and Behavioral. Here you will find information on these important patterns. To give you a head start, the C# source code is provided in 2 forms: 'structural' and 'real-world'. Structural code uses type names as defined in the pattern definition and UML diagrams. Real-world code provides real-world programming situations where you may use these patterns. A third form, '.NET optimized' demonstrates design patterns that exploit built-in .NET 4.0 features, such as, generics, attributes, delegates, object and collection initializes, automatic properties, and reflection. These and much more are available in our Design Pattern Framework 4.0™. See our Singleton page for a .NET 4.0 Optimized code sample. Coconut Database development is based mainly on the ASP.NET Database management system version visual studio 2005, running on Web set 24. ASP.NET is an object-oriented system capable of automatically storing and retrieving complex biological information, and is currently used by many databases: Disease Database, Pest Database, etc. ASP.NET provides an intuitive object-oriented view of biological data, disease figures, insect figures, and symptoms, control measures user interface with many specialized data visualization tools, such as an all types of data's display (Figure 1 and 2).

Fig.1. Coconut Diseases Database with ASP.Net

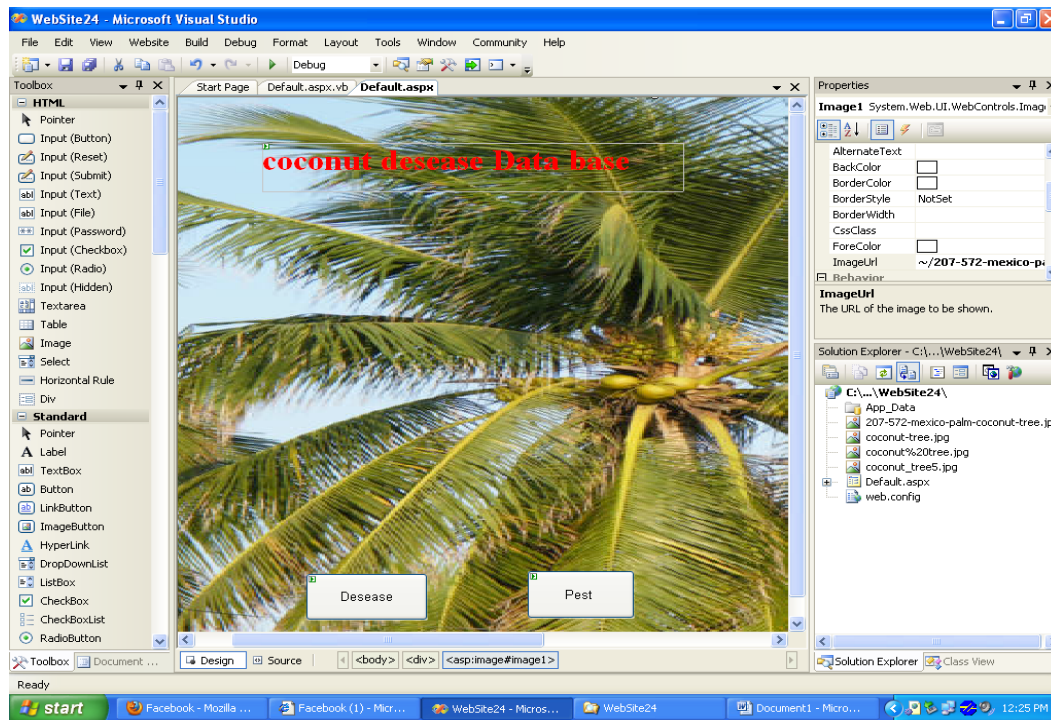
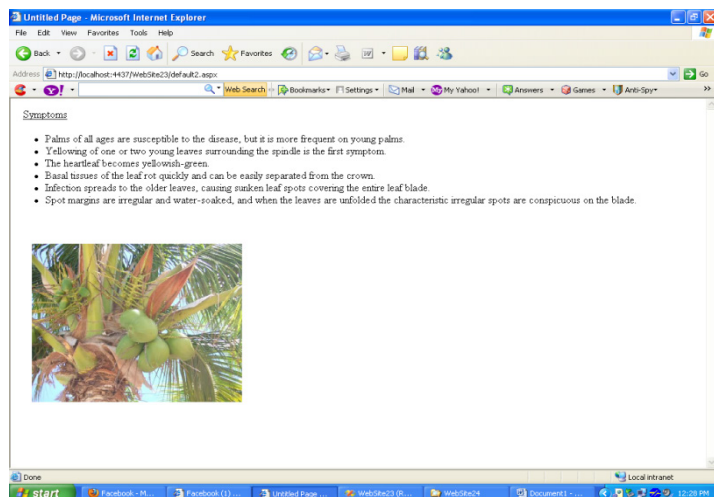
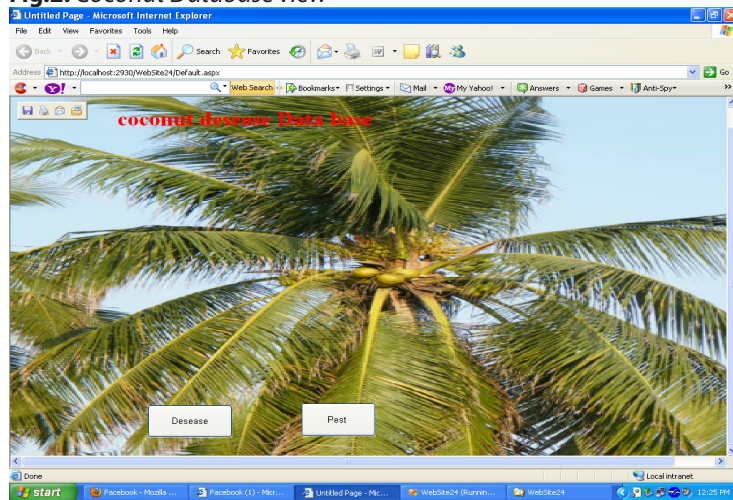


Fig.2. Coconut Database view



3. WEB CONSULTATION INTERFACE

Color is an indispensable tool for successful user interface and web design. It is the primary building block of all visual design. Color functions on several levels simultaneously.

Color makes things look good. It pleases the eye and sustains visual interest. The bright colors maximize readability and minimize optical fatigue. The wrong colors strain the eyes and lower the level of comprehension. Color communicates and delivers symbolic meanings that support and enhance the visual experience or individual elements within a design whether it is a web page.

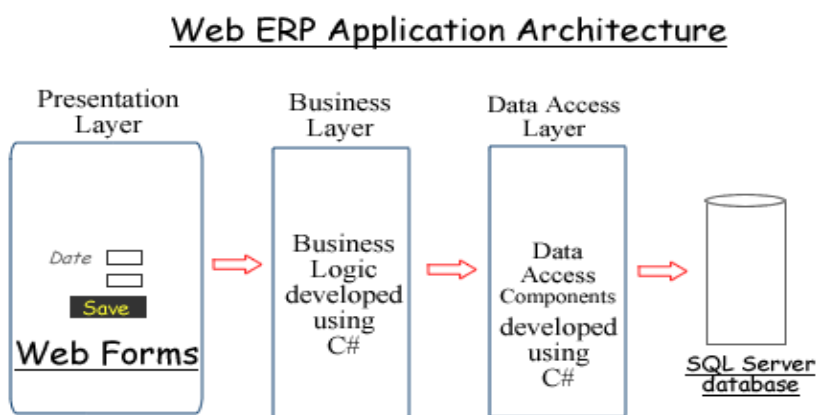
4. ASP.NET PACKAGE

Develop five modules of Web software - Finance, Sales and Marketing, Inventory, Purchase and Manufacturing. Program Web software for the Create the Finance module for the Web (Chart of accounts, creation of Customer accounts, Vendor accounts, Banks, Cash / Check Vouchers and Cash / Check Receipts). Create the Sales module for the Web system (Sales order creation, Picking sales orders for packing and shipping, Creating sales invoice, Tracking back orders). Create the Purchase module for the Web system (Purchase order, Receiving materials and Purchase invoice). Create the Inventory module (Items and issuing materials for completing Work orders). Includes source code - a ready Web system developed using ASP.Net Use source code to extend and customize to meet your needs.

Build multi-layered Web software. The database section of the Web software is called Data layer and contains the database, tables and stored procedures. The business logics of the Web software are called Business Layer and contain classes to implement business logics. The data access logic of Web software is called Data Access layer, is a generalized component developed using C# and can be used for any other .net application.

The user interface of the Web software is called Presentation layer and contains ASP.Net web server controls, Validation controls and Object Data Source controls. Learn how to bind data bound controls to a Business Object using Object Data Source Control. Design and program the materials feature including table structures. Accept and handle raw materials, sub-assemblies, finished products and consumables. Optimize Web based data entry forms to implement multiple business processes in an organization. Implement double entry rules in a Web software. Implement Transaction management in the Layers using Transaction Scope object (Figure 3).

Fig.3. Presentation layer



5. CONCLUSION

Current Coconut Database has been submitted by different farmers, scientists from other institutions working on tropical crops (a data origin web page is available for Coconut disease and pests). Standard Excel submission files corresponding to the various types of data that can be submitted have been created to allow easy data submission. These files and a web form to deposit the standard data files for their incorporation in Coconut database are currently available on our database. The internet versions will be soon available. Submitted data quality and integrity were checked by experts of each tropical crop.

6. FURTHER DEVELOPMENTS

It is planned for the Coconut database content to grow quickly. Indeed, new data for a coconut module including sequence, map and primer data, resistance genes, a genetic map QTL data (yield and yield components, bean traits, resistance to various species of coconut) should be soon added to Coconut database. Coconut database model flexibility makes it simple to add new types of data as they become available: expressed sequence tag (EST), bacterial artificial chromosome (BAC) data, etc. Future enhancements of Coconut database include the development of other tropical crops modules for rice, cotton, oil palm, rubber tree, pineapple, taro, yam and sorghum. Their interface development will be facilitated by the package.

7. REFERENCES

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