# CHAPTER – 1

**PROJECT OVERVIEW**

* 1. INTRODUCTION

This Prashnapatrika Nirmata is very useful software for students, schools, colleges, coaching centers, tutors, paper setter, competitive exams tutors, professional course learning centers and training institutes intended to generate Question Test Papers frequently.

Prashnapatrika Nirmata is unique software developed to overcome problem faced by the institution in conducting daily, weekly and monthly test. This software is designed in such a manner that it keeps record in hierarchy of Subject http://www.omrhome.com/images/process_bullet.gif>Units http://www.omrhome.com/images/process_bullet.gif>Chapters http://www.omrhome.com/images/process_bullet.gif>Questions

This software is based on GUI (Graphical User Interface) i.e. a windows based software, which makes it easier to understand and work. This software is developed, understanding the needs of the customer who do not want to spent time in managing and checking of papers.

* 1. PROJECT OBJECTIVE



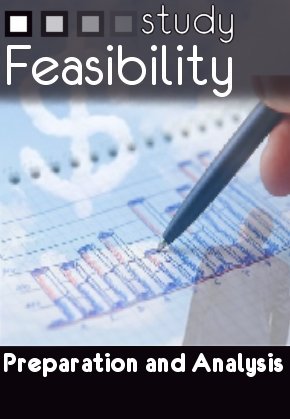
You can set paper either automatically or manually

* Simply select class, subject and questions and click to print the paper and the rest of work will be done automatically by software.
* It automatically generates question paper by simple gives the number of question and difficulty of question.
* Automatic generated paper will not have the repetition of questions of the previous paper.
* You can also print answer key of your paper.

# CHAPTER – 2

**ANALYSIS**

2.1 FEASIBILITY STUDIES



A feasibility study gives vision on the viability of an idea or imaginative power with an emphasis on identifying potential problem and attempts to answer two main questions.

* Will the idea work?
* Should we proceed with it?

It also deals with making a plan to determine the complexity and efforts of the system.

* + 1. **BEHAVIOUR FEASIBILITY**
* This project can be executed on any machine; there is no special hardware or application required.
* The project has better survival chance in market or business, as it is less complicated.
* It will be easy to understand the project as it has very good user interface and it is portable.
* The project is very cost efficient and it ensures to save a lot of time.
* It clearly identifies the scope definition and requirement analysis phase of system development.
  + 1. **MARKET FEASIBILITY**
* As “Maestro’s Suite” is an academic project that we are developing in computer technology branch, it will be useful for our branch as well as any educational institution.
* Market wants readiness from students that are highly technical and efficient. So our project will make student confident enough to survive in the business world.
* Our project is not only for computer literates but any person who has basic knowledge about computers can use this project.
* Our project assures teachers that it will make their work of setting question paper a lot easier.
  + 1. **TECHNICAL FEASIBILITY**
* Our project works on almost all platforms.
* Our project occupies less hard drive space.
* Our project ensures maximum output with minimum CPU resource utilization.
* The user interface is lucid and gives the original look and feel of a question paper metaphor.
  + 1. **FINANCIAL FEASIBILITY**
* As this is our educational related academic project we need to present and develop a project using any of the computer language.
* We are going to use what we have learn and gain knowledge from past. For developing Maestro’s Suite we need more knowledge about the topic and know such technology.
* Hence the capital that we will required is to study and put in practice the study material like
* VB 6.0
* MS- access
* And by following this all we aim in providing maximum benefit to education organization

**CHAPTER – 3** **DESIGN**

* 1. **SOFTWARE REQUIREMENT SPECIFICATION**
     1. **VB 6.0**
* Visual Basic is a [third-generation](http://en.wikipedia.org/wiki/Third-generation_programming_language) [event-driven programming language](http://en.wikipedia.org/wiki/Event-driven_programming) and [integrated development environment](http://en.wikipedia.org/wiki/Integrated_development_environment) (IDE) from [Microsoft](http://en.wikipedia.org/wiki/Microsoft) for its [COM](http://en.wikipedia.org/wiki/Component_Object_Model) programming model first released in 1991.
* Visual Basic is designed to be relatively easy to learn and use. Visual Basic was derived from [BASIC](http://en.wikipedia.org/wiki/BASIC) and enables the [rapid application development (RAD)](http://en.wikipedia.org/wiki/Rapid_application_development) of [graphical user interface (GUI)](http://en.wikipedia.org/wiki/Graphical_user_interface) applications, access to [databases](http://en.wikipedia.org/wiki/Database) using [Data Access Objects](http://en.wikipedia.org/wiki/Data_Access_Object), [Remote Data Objects](http://en.wikipedia.org/wiki/Remote_Data_Objects), or [ActiveX Data Objects](http://en.wikipedia.org/wiki/ActiveX_Data_Object), and creation of [ActiveX](http://en.wikipedia.org/wiki/ActiveX) controls and objects.
* A programmer can create an application using the [components](http://en.wikipedia.org/wiki/Component-based_software_engineering) provided by the Visual Basic program itself. Programs written in Visual Basic can also use the [Windows API](http://en.wikipedia.org/wiki/Windows_API), but doing so requires external function declarations. Though the program has received criticism for its perceived faults, version 3 of Visual Basic was a runaway commercial success,[[4]](http://en.wikipedia.org/wiki/Visual_Basic#cite_note-4) and many companies offered third party controls greatly extending its functionality.
  + 1. **.MS-Access**
* Microsoft Access, also known as Microsoft Office Access, is a [database management system](http://en.wikipedia.org/wiki/Database_management_system) from [Microsoft](http://en.wikipedia.org/wiki/Microsoft) that combines the relational [Microsoft Jet Database Engine](http://en.wikipedia.org/wiki/Microsoft_Jet_Database_Engine) with a [graphical user interface](http://en.wikipedia.org/wiki/Graphical_user_interface) and software-development tools.
* It is a member of the [Microsoft Office](http://en.wikipedia.org/wiki/Microsoft_Office) suite of applications, included in the Professional and higher editions or sold separately. On May 12, 2010, the current version of Microsoft Access 2010 was released by Microsoft in Office 2010; Microsoft Office Access 2007 was the prior version.
* Microsoft Access stores data in its own format based on the Access Jet Database Engine. It can also import or link directly to [data](http://en.wikipedia.org/wiki/Data) stored in other applications and databases.
* [Software developers](http://en.wikipedia.org/wiki/Software_developer) and [data architects](http://en.wikipedia.org/wiki/Data_architect) can use Microsoft Access to develop [application software](http://en.wikipedia.org/wiki/Application_software), and "[power users](http://en.wikipedia.org/wiki/Power_users)" can use it to build software applications. Like other [Office applications](http://en.wikipedia.org/wiki/Microsoft_Office), Access is supported by [Visual Basic for Applications](http://en.wikipedia.org/wiki/Visual_Basic_for_Applications), an [object-oriented](http://en.wikipedia.org/wiki/Object-oriented) programming language that can reference a variety of objects including DAO (Data Access Objects), [ActiveX](http://en.wikipedia.org/wiki/ActiveX) Data Objects, and many other ActiveX components.
  1. **RISK ASSESSMENT**



Risk assessment is a step in a risk management procedure. Risk assessment is the determination of quantitative value of risk related to a concrete situation and a recognized threat (also called hazard).

Quantitative risk assessment requires calculations of two components of risk: R, The magnitude of the potential loss L, and the probability P, that the loss will be occur.

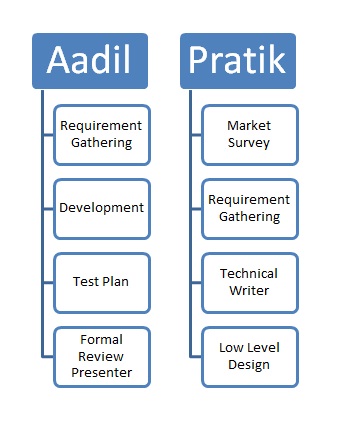
* 1. **PROJECT SCHEDULING**



Prashnapatrika Nirmata has been scheduled as per the following:

Fig 3.1: Project Scheduling

**3.4 TEAM STRUCTURE**

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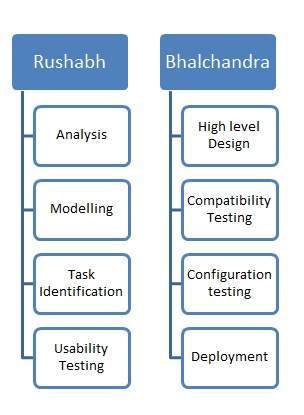
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Fig 3.2: Team Structure

# CHAPTER – 4

**MODELING**

**4.1 DATA FLOW DIAGRAM**

* A data flow diagram (DFD) is a graphical representation of the "flow" of data through an [information system](http://en.wikipedia.org/wiki/Information_system), modeling its process aspects. Often they are a preliminary step used to create an overview of the system which can later be elaborated.[[2]](http://en.wikipedia.org/wiki/Data_flow_diagram#cite_note-2) DFDs can also be used for the [visualization](http://en.wikipedia.org/wiki/Data_visualization) of [data processing](http://en.wikipedia.org/wiki/Data_processing) (structured design).
* A DFD shows what kinds of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel (which is shown on a [flowchart](http://en.wikipedia.org/wiki/Flowchart)).

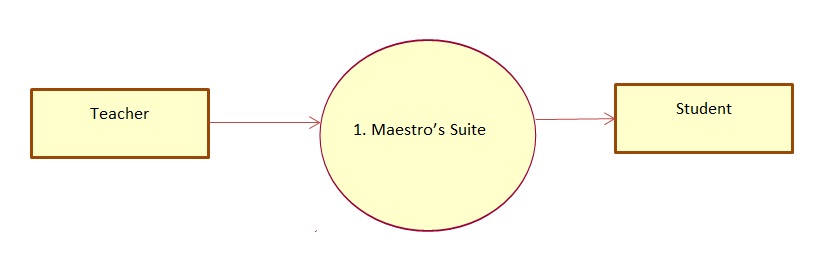
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Fig 4.1: DFD Level 0

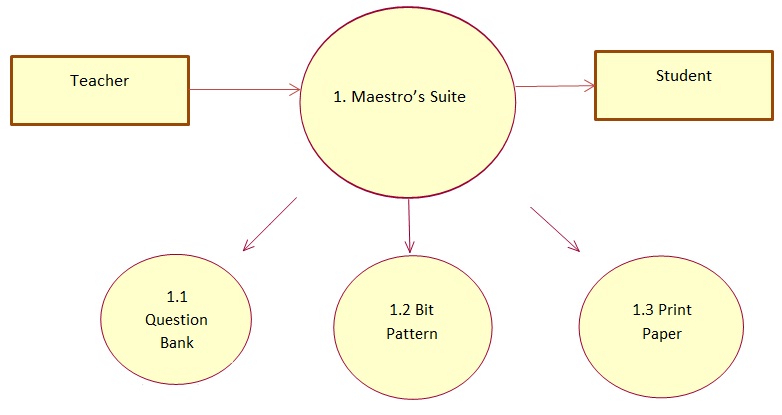
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Fig 4.2: DFD Level 1

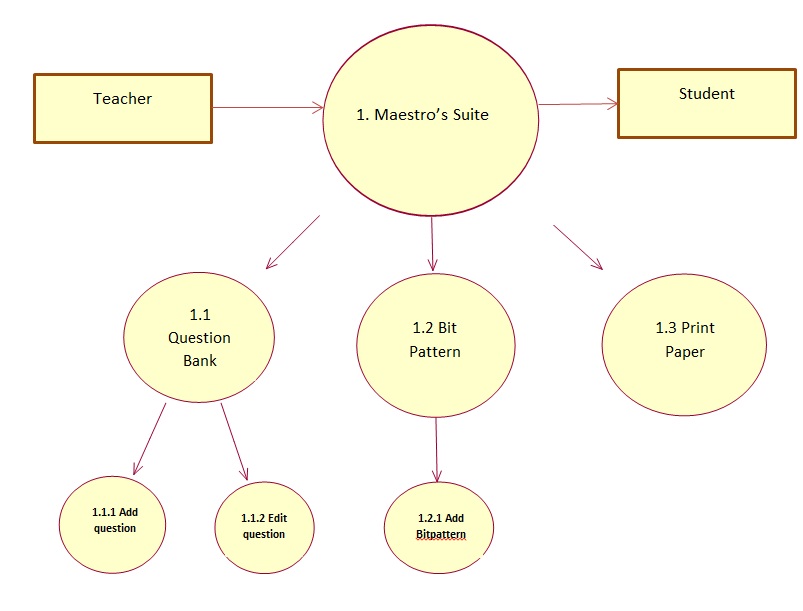
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Fig 4.3: DFD Level 2

**4.2 SEQUENCE DIAGRAM**

* It is an interaction diagram that emphasizes the time ordering of messages. A sequence diagram shoes a set of objects and the messages sent and received by those objects.
* The objects are typically named or anonymous instances of classes, but may also represent instances of other things, such as collaboration, components and nodes.
* Sequence diagram are used to illustrate the dynamic view of a system.

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Fig 4.4: Sequence Diagram

**4.3 ACTIVITY DIAGRAM**

* Activity diagrams are graphical representations of [workflows](http://en.wikipedia.org/wiki/Workflow) of stepwise activities and actions with support for choice, iteration and concurrency. In the [Unified Modeling Language](http://en.wikipedia.org/wiki/Unified_Modeling_Language), activity diagrams can be used to describe the business and operational step-by-step workflows of components in a system. An activity diagram shows the overall flow of control.
* Activity diagrams are constructed from a limited number of shapes, connected with arrows.
* The important shape types are:-
  + rounded rectangles represent activities;
  + diamonds represent decisions;
  + bars represent the start (split) or end (join) of concurrent activities;
  + a black circle represents the start (initial state) of the workflow;



Fig 4.5: Activity Diagram

**4.4 USE CASE DIAGRAM**

* A use case diagram at its simplest is a graphical representation of a user's interaction with the system and depicting the specifications of a [use case](http://en.wikipedia.org/wiki/Use_Case).
* A use case diagram can portray the different types of users of a system and the various ways that they interact with the system.
* This type of diagram is typically used in conjunction with the textual [use case](http://en.wikipedia.org/wiki/Use_Case) and will often be accompanied by other types of diagrams as well.

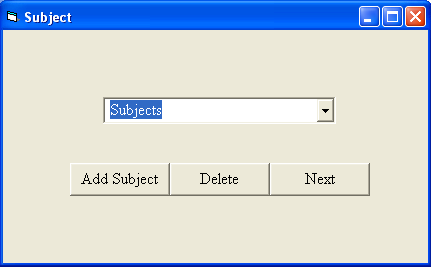


**Fig 4.1: Use case Diagram**

# CHAPTER – 5

**CODING**

* 1. **Select Subject**



**Fig 5.1: Snapshot 1**

Private Sub AddSubject\_Click()

Unload SubjectForm

Load AddSubjects

AddSubjects.Show

End Sub

Private Sub Form\_Load()

SubjectForm.Width = 6500

SubjectForm.Height = 4000

AddSubjectstoSubjectsCombo

End Sub

Private Sub Next\_Click()

Subjects.Open "SELECT \* FROM Subjects", MainModule.con

For rc = Subjects.RecordCount To 1 Step -1

If Not SubjectsCombo.Text = Subjects!subjectcode& " " &Subjects!subjectname Then

Subjects.MoveNext

Else

Subjects.Close

Exit For

End If

Next

If rc = 0 Then

Subjects.Close

MsgBox "Select or enter proper subject.", , "Error"

Exit Sub

End If

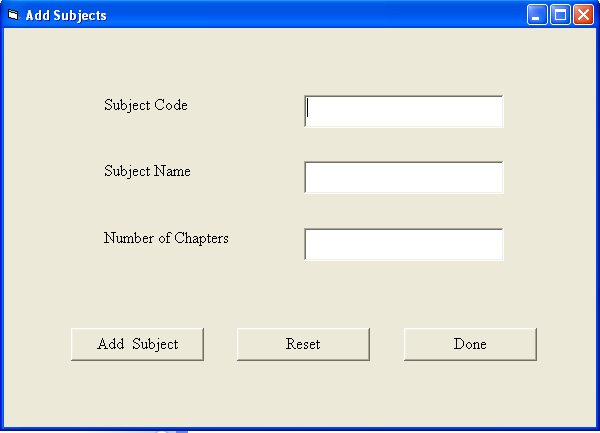
MainModule.Subject = Mid(SubjectsCombo.Text, 1, 5)

Unload SubjectForm

ChoiceForm.Show

End Sub

* 1. **Add Subject**



**Fig 5.1: Snapshot 2**

Dim AddSubjectRSAs New ADODB.Recordset

Dim rs1, rs2 As New ADODB.Recordset

Private Sub AddCmd\_Click()

If SubjectCodeText.Text = "" Or SubjectNameText.Text = "" Or NoofChaptersText.Text = "" Then

MsgBox "One or more fields are empty", , "Error"

Exit Sub

End If

If IsNumeric(NoofChaptersText.Text) = False Then

MsgBox "Please enter valid Number of Chapters", , "Error"

NoofChaptersText.Text = ""

NoofChaptersText.SetFocus

Exit Sub

Els

If NoofChaptersText.Text<= 0 Then

MsgBox "Please enter valid Number of Chapters", , "Error"

NoofChaptersText.Text = ""

NoofChaptersText.SetFocus

Exit Sub

End If

End If

AddSubjectRS.Open "SELECT SubjectCode FROM Subjects", MainModule.con

For i = 1 ToAddSubjectRS.RecordCount Step 1

If SubjectCodeText.Text = AddSubjectRS!subjectcode Then

MsgBox "Subject already present", , "Error"

SubjectCodeText.Text = ""

SubjectCodeText.SetFocus

AddSubjectRS.Close

Exit Sub

End If

Next

If IsNumeric(SubjectCodeText.Text) = False Then

MsgBox "Please, enter valid Subject Code.", , "Error"

SubjectCodeText.Text = ""

SubjectCodeText.SetFocus

Exit Sub

Else

If Len(SubjectCodeText.Text) < 5 Then

MsgBox "Please, enter 5 digit Subject Code", , "Error"

SubjectCodeText.SetFocus

Exit Sub

End If

End If

SQL = "INSERT INTO Subjects VALUES(" &SubjectCodeText.Text& ",'" &SubjectNameText.Text& "'," &NoofChaptersText.Text& ")"

SQL = "CREATE TABLE "&SubjectCodeText.Text& "(Chapter Number,QuestionVarchar(255),Repetition Number,MarksNumber,Flag YESNO)"

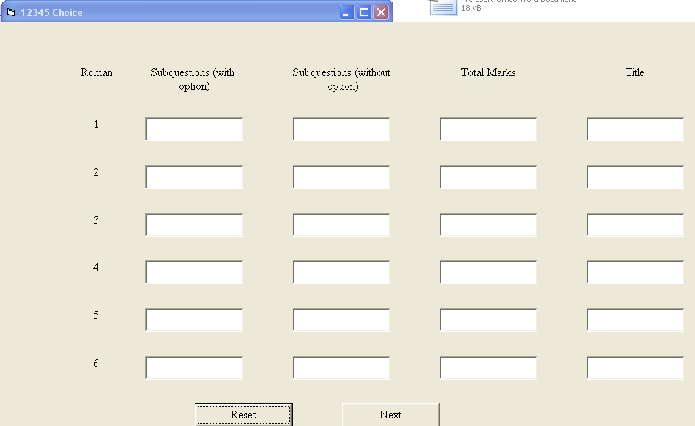
AddSubjectRS.Open "CREATE TABLE "&SubjectCodeText.Text& "BitPattern" & "(Roman Number,SubquestionNumber,ChapterNumber,MarksNumber,Opt YESNO)", MainModule.con

MsgBoxSubjectNameText.Text&" added."

ResetCmd\_Click

End Sub

* 1. **Bit Pattern**



**Fig 5.1: Snapshot 3**

Public R As Integer

Dim RStringAs String

Public RomanLbl1 As Label

Public SQOTxt, SQWOTxt, MarksTxt, TitleTxtAsTextBox

Private Sub Form\_Load()

Me.Caption = MainModule.Subject&" Bit Pattern"

MainModule.BitPatternRS.Open "SELECT \* FROM " &MainModule.Subject& "BitPattern", MainModule.con

If Not MainModule.BitPatternRS.RecordCount = 0 Then

X = MsgBox("Do you want to delete existing bit pattern?", vbYesNo)

End If

End If

MainModule.SelSubject.Open "DELETE FROM "&MainModule.Subject& "BitPattern", MainModule.con

RString = InputBox("Enter number of roman numbers:")

If IsNumeric(RString) = False Then

MsgBox "Please, enter proper roman numbers.", , "Error"

Exit Sub

End If

R = Int(RString)

For i = 1 To R Step 1

Set RomanLbl1 = Controls.Add("Vb.Label", "Label" & i)

Set SQOTxt = Controls.Add("Vb.TextBox", "SQOText" & i)

Set SQWOTxt = Controls.Add("Vb.TextBox", "SQWOText" & i)

Set MarksTxt = Controls.Add("Vb.TextBox", "MarksText" & i)

Set TitleTxt = Controls.Add("Vb.TextBox", "TitleText" & i)

With RomanLbl1

.Alignment = 2

.Caption = i

.FontName = "Times New Roman"

.FontSize = 12

.Height = 500

.Left = 1000

.Top = i \* 1000 + 1000

.Visible = True

.Width = 2000

End With

With SQOTxt

.FontName = "Times New Roman"

.FontSize = 12

.Height = 500

.Left = 3000

.Top = i \* 1000 + 1000

.Visible = True

.Width = 2000

End With

With SQWOTxt

.FontName = "Times New Roman"

.FontSize = 12

.Height = 500

.Left = 6000

.Top = i \* 1000 + 1000

.Visible = True

.Width = 2000

End With

With MarksTxt

.FontName = "Times New Roman"

.FontSize = 12

.Height = 500

.Left = 9000

.Top = i \* 1000 + 1000

.Visible = True

.Width = 2000

End With

With TitleTxt

.FontName = "Times New Roman"

.FontSize = 12

.Height = 500

.Left = 12000

.Top = i \* 1000 + 1000

.Visible = True

.Width = 2000

End With

Next

ResetCmd.Top = MarksTxt.Top + 1000

NextCmd.Top = MarksTxt.Top + 1000

Me.Width = 16000

Me.Height = MarksTxt.Top + 3000

End Sub

Private Sub NextCmd\_Click()

For i = 1 To R Step 1

If Not IsNumeric(SQOTxt.Text) Or Not IsNumeric(SQWOTxt.Text) Or Not IsNumeric(MarksTxt.Text) Then

MsgBox "Enter numeric values only.", , "Error"

Exit Sub

Else

If Val(SQOTxt.Text) < 1 Or Val(SQWOTxt.Text) < 1 Or Val(MarksTxt.Text) < 1 Then

MsgBox "Please, enter values greater than zero.", , "Error"

Exit Sub

End If

If SQOTxt.Text<SQWOTxt.Text Then

MsgBox "Please, enter greater no of options.", , "Error"

Exit Sub

End If

End If

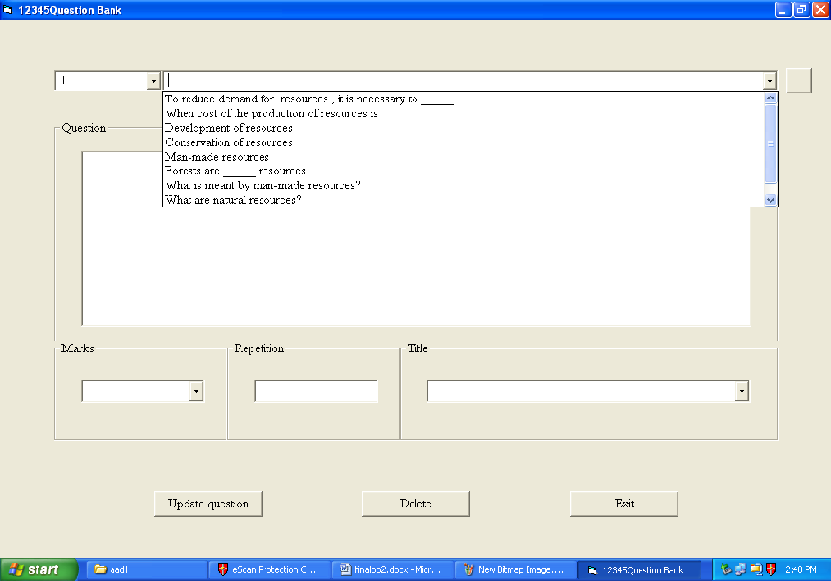
Next

Me.Visible = False

SubQuestionFrm.Show

End Sub

* 1. **Question Bank**



**Fig 5.1: Snapshot 4**

Dim Question As String

Dim MarkOptionAs Integer

Private Sub AddCmd\_Click()

ChapterCombo.Enabled = True

QuestionFrame.Enabled = True

MarksFrame.Enabled = True

RepetitionFrame.Enabled = True

SubmitCmd.Caption = "Insert question"

AddCmd.Visible = False

EditCmd.Visible = False

QuestionText.Text = ""

RepetitionText.Text = ""

SubmitCmd.Visible = True

SubmitCmd.Enabled = True

EditCmd.Enabled = False

QuestionCombo.Enabled = False

End Sub

Private Sub DoneCmd\_Click()

DeleteCmd.Visible = False

SubmitCmd.Visible = False

EditCmd.Visible = True

AddCmd.Visible = True

End If

If AddCmd.Enabled = False Then

LockCmd.Visible = False

AddCmd.Enabled = True

End If

If EditCmd.Enabled = False Then

EditCmd.Enabled = True

End If

ChapterCombo.Enabled = False

QuestionCombo.Enabled = False

QuestionFrame.Enabled = False

MarksFrame.Enabled = False

RepetitionFrame.Enabled = False

End Sub

Private Sub EditCmd\_Click()

DeleteCmd.Visible = True

ChapterCombo.Enabled = True

QuestionCombo.Enabled = True

QuestionFrame.Enabled = True

MarksFrame.Enabled = True

RepetitionFrame.Enabled = True

SubmitCmd.Caption = "Update question"

AddCmd.Visible = False

EditCmd.Visible = False

LockCmd.Visible = True

SubmitCmd.Visible = True

SubmitCmd.Enabled = True

AddCmd.Enabled = False

End Sub

Private Sub Form\_Load()

Me.Caption = MainModule.Subject& "Question Bank"

DeleteCmd.Visible = False

ChapterCombo.Enabled = False

QuestionCombo.Enabled = False

SubmitCmd.Visible = False

QuestionFrame.Enabled = False

RepetitionFrame.Enabled = False

MarksFrame.Enabled = False

MainModule.Subjects.Open "SELECT NoofChapters FROM Subjects WHERE SubjectCode=" &MainModule.Subject

For i = 1 To MainModule.Subjects!NoofChapters Step 1

ChapterCombo.AddItem i

Next

End Sub

Public Sub AddQuestionstoQuestionCombo()

rc = MainModule.SelSubjectRecordCount

If rc = 0 Then

QuestionCombo.Enabled = False

Else

SelSubject.Open "SELECT \* FROM " &MainModule.Subject& " WHERE Chapter=" &ChapterCombo.Text

For i = 1 ToSelSubject.RecordCount Step 1

QuestionCombo.AddItemSelSubject!Question

SelSubject.MoveNext

Next

End If

End Sub

Private Sub MarksCombo\_GotFocus()

MarksCombo.Clear

MainModule.BitPatternRS.Open "SELECT DISTINCT(Marks) FROM " &MainModule.Subject& "BitPattern ORDER BY Marks"

For i = 1 ToBitPatternRS.RecordCount Step 1

MarksCombo.AddItemBitPatternRS!Marks

BitPatternRS.MoveNext

Next

End Sub

Private Sub QuestionCombo\_GotFocus()

QuestionCombo.Clear

MainModule.Subjects.Open "SELECT NoofChapters FROM Subjects WHERE SubjectCode=" &MainModule.Subject

For i = 1 To MainModule.Subjects!NoofChapters Step 1

If ChapterCombo.Text = i Then

Exit For

End If

Next

If (i - 1) = MainModule.Subjects!NoofChapters Then

MsgBox "Please select proper chapter"

Exit Sub

End If

AddQuestionstoQuestionCombo

End Sub

Private Sub QuestionCombo\_LostFocus()

MainModule.SelSubject.Open "SELECT Question FROM "&MainModule.Subject

For i = 1 ToSelSubject.RecordCount Step 1

If QuestionCombo.Text = SelSubject!Question Then

Exit For

End If

SelSubject.MoveNext

Next

If i >SelSubject.RecordCount Then

MsgBox "Please, select proper question.", , "Error"

Exit Sub

End If

MainModule.SelSubject.Open "SELECT \* FROM " &MainModule.Subject& " WHERE Question='" &QuestionCombo.Text& "'", MainModule.con

QuestionText.Text = MainModule.SelSubject!Question

RepetitionText.Text = MainModule.SelSubject!Repetition

If MainModule.SelSubject!Marks = 2 Then

Mark2.Value = True

End If

If MainModule.SelSubject!Marks = 4 Then

Mark4.Value = True

End If

If MainModule.SelSubject!Marks = 6 Then

Mark6.Value = True

End If

If MainModule.SelSubject!Marks = 8 Then

Mark8.Value = True

End If

End Sub

Private Sub SubmitCmd\_Click()

MainModule.Subjects.Open "SELECT NoofChapters FROM Subjects WHERE SubjectCode=" &MainModule.Subject, MainModule.con

For i = 1 To MainModule.Subjects!NoofChapters Step 1

If ChapterCombo.Text = i Then

Exit For

End If

Next

If (i - 1) = MainModule.Subjects!NoofChapters Then

MsgBox "Please select proper chapter"

Exit Sub

End If

If QuestionText.Text = "" Or RepetitionText.Text = "" Or MarksCombo.Text = "" Then

MsgBox "One or more fields empty"

Exit Sub

End If

If EditCmd.Enabled = False Then

MarkOption = MarksCombo.Text

MsgBox "Question inserted."

If QuestionCombo.Enabled = False Then

QuestionCombo.Enabled = True

End If

End If

If AddCmd.Enabled = False Then

MarkOption = MarksCombo.Text

SelSubject.Open "UPDATE "&MainModule.Subject& " SET Chapter=" &ChapterCombo.Text& ",Question='" &QuestionText.Text& "',Repetition=" &RepetitionText.Text& ",Marks=" &MarkOption& ",Flag=0 WHERE Question='" &QuestionCombo.Text& "'", MainModule.con

MsgBox "Question edited."

QuestionCombo.Enabled = True

LockCmd.Enabled = True

End If

End Sub

Private Sub TitleCombo\_GotFocus()

TitleCombo.Clear

MainModule.BitPatternRS.Open "SELECT DISTINCT(Title) FROM " &MainModule.Subject& "BitPattern", MainModule.con

For i = 1 ToBitPatternRS.RecordCount Step 1

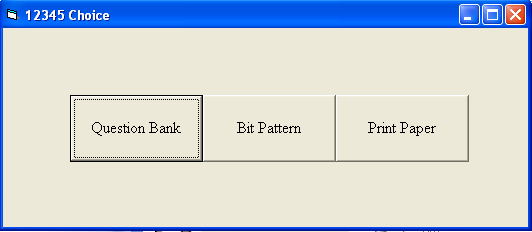
TitleCombo.AddItemBitPatternRS!Title

BitPatternRS.MoveNext

Next

End Sub

* 1. **Print Paper**

****

**Fig 5.1: Snapshot 5**

Dim QuestionBankAs New ADODB.Recordset

Dim QuestionBank1 As New ADODB.Recordset

Dim BitPatternAs New ADODB.Recordset

Dim word\_app As Word.Application

Dim word\_doc As Word.Document

Dim chno, m, R As Integer

Dim Question As String

Private Sub BitPatternCmd\_Click()

BitPatternForm.Show

If BitPatternForm.R = 0 Then

Unload BitPatternForm

End If

End Sub

Private Sub PrintPaperCmd\_Click()

MainModule.SelSubject.Open "SELECT \* FROM " &MainModule.Subject

MainModule.BitPatternRS.Open "SELECT \* FROM " &MainModule.Subject& "BitPattern"

If SelSubject.RecordCount = 0 OrBitPatternRS.RecordCount = 0 Then

MsgBox "Question bank or Bitpattern not inserted.", , "Error"

Exit Sub

End If

Dim TRNOvarAs Integer

Set word\_app = New Word.Application

Set word\_doc = word\_app.Documents.Add(Documenttype:=wdNewBlankDocument)

SQL = "SELECT COUNT(\*) AS TRNO FROM (SELECT DISTINCT Roman FROM " &MainModule.Subject& "BitPattern)"

TRNOvar = BitPattern!TRNO

If BitPattern.State = 1 Then BitPattern.Close

word\_app.Selection.Font.Name = "Times New Roman"

word\_doc.PageSetup.PaperSize = wdPaperA4

For i = 1 ToTRNOvar Step 1

SQL = "SELECT Title FROM "&MainModule.Subject& "BitPattern WHERE Opt=-1 AND Roman=" & i

MainModule.BitPatternRS.Open "SELECT \* FROM " &MainModule.Subject& "BitPattern WHERE Opt=-1"

word\_app.Selection.Font.Bold = True

word\_app.Selection.Font.AllCaps = True

word\_app.Selection.TypeText "Q" & i & ". "&BitPattern!Title

If BitPatternRS.RecordCount = BitPattern.RecordCount Then

word\_app.Selection.TypeText " (Any " &BitPattern.RecordCount& ")"

End If

word\_app.Selection.TypeTextvbCrLf

word\_app.Selection.Font.AllCaps = False

word\_app.Selection.Font.Bold = False

BitPattern.Close

BitPattern.Open "SELECT COUNT(\*) AS SQNO FROM " &MainModule.Subject& "BitPattern WHERE Roman =" & i

j = BitPattern!SQNO

BitPattern.Open "SELECT Chapter,Marks,Title FROM " &MainModule.Subject& "BitPattern WHERE Roman=" & i

For k = 1 To j Step 1

SQL = "SELECT Question FROM "&MainModule.Subject& " WHERE Chapter=" &BitPattern!Chapter& " AND Marks=" &BitPattern!Marks& " AND Flag=0 AND Title='" &BitPattern!Title& "'"

Randomize

Num = Int((QuestionBank.RecordCount \* Rnd) + 1)

For l = 2 ToNum Step 1

QuestionBank.MoveNext

Next

word\_app.Selection.TypeText k & ") " &QuestionBank!Question&vbCrLf

SQL = "UPDATE "&MainModule.Subject& " SET Flag=-1 WHERE Question='" &QuestionBank!Question& "'"

QuestionBank.Close

BitPattern.MoveNext

Next

BitPattern.Close

Next

QuestionBank.Open "UPDATE "&MainModule.Subject& " SET Flag=0"

Do

pass = InputBox("enter password")

pass1 = InputBox("confirm password")

If Not pass = pass1 Then

MsgBox "Verify password.", , "Error"

End If

Loop Until (pass = pass1)

word\_doc.SaveAsFileName:=App.Path& "\" &MainModule.Subject& " QP.doc", Password:=pass

MsgBox "Paper printed."

word\_doc.Close

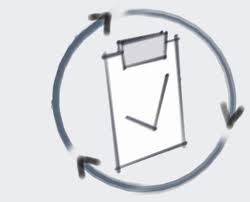
word\_app.Quit

End Sub

# CHAPTER – 6

**TESTING**

**6.1 FORMAL TECHNICAL REVIEW**



* Software technical review is a form of peer review in which a term of qualified personnel…examines the suitability of the software product for its intended use and identifies discrepancies from specification and standards.
* Technical review may also provide recommendation of alternatives and examination of various alternatives” (IEEE Std. 1028-1997, IEEE Standard for Software Reviews, clause 3.7).
* “SOFTWARE PRODUCT” Normally refers to some kind of technical document. This might be a software design document or program source code, but use cases, business process definition, test case specification, and a variety of other technical document, may also be subjected to technical review.
* Technical review differs from software walkthroughs in its specific focus on the technical quality of the product reviewed, and its lack of a direct focus on training and process improvement.

**6.2 TEST PLAN**



A test plan documents the strategy that will be used to verify and ensure that a product or system meets its design specification and other requirements. A test plan is usually prepared by or with significant input from Test Engineers.

Depending on the product and the responsibility of the organization to which the test plan applies, a test plan may include one or more of the following:-

* Design Verification or Compliance test:-

To b performed during the development or approval stages of the product, typically on a small sample of units.

* Manufacturing or Production test:-

To be performed during preparation or assembly of the product in an ongoing manner for purposes performance verification and quality control.

* Acceptance or Communication test:-

To be performed at the time of delivery on installation of the product.

* Service and Repair test:-

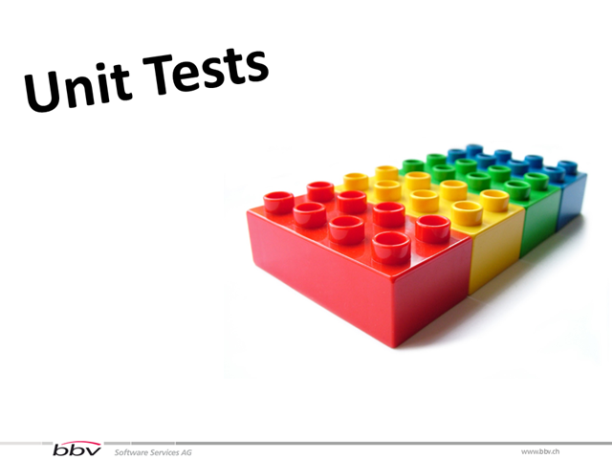
To be performed as required over the service life of the product.

**6.3 TEST CASES AND TEST RESULTS**



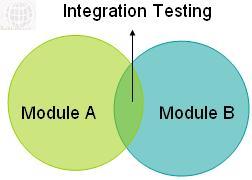
* A test case in software engineering is a set of condition or variables under which a tester will determine whether an application or software system is working correctly or not.
* The mechanism for determining whether a software program or system has passed or failed such a test is known as a test oracle. In some setting, an oracle could be a requirement or use case, while in other it could be a heuristic. It may take many test cases to determine that a software program or system is functioning correctly. Test cases are often referred to as test scripts, particularly when written. Written test cases are usually collected into test suites.

**6.4 UNIT TESTING**



* In computer programming, unit testing is a method by which individual units of source code are tested to determine if they are fit for use. A unit testing is the smallest testable part of an application. In procedural programming a unit may be an individual function or procedural. Unit tests are created by programming or occasionally by white box testers

**6.5 INTEGRATION TESTING**



* Integration testing is the phase in software testing in which individual software modules are combined and tested as a group. It occurs after unit testing and before system testing. Integration testing takes as its input module that have been unit tested, groups them in larger aggregate, applies test define in an integration test plan to those aggregate, and delivers as its output the integrated system ready for system testing.
* Bottom up testing is an approach to integrated testing whether lowest level components are tested first, then used to facilitate the testing of higher level components. The process is repeated until the component at the top of hierarchy is tested.
* All the bottom or low-level modules, procedure or function are integrated modules, the next level of modules will be formed and used for integration testing. This method also helps to determine the levels of software developed and makes it easier to report testing progress in the form of percentage.

# CHAPTER –7

**FEATURES AND APPLICATION**

* 1. FEATURES



Features of Prashnapatrika Nirmata are:

* Question paper can be generated for any standard.
* Question paper can be generated for any subject.
* Question bank can be entered or modified by the educational institutes.
* Question can be stored with Mathematical Equation.
* Unlimited questions can be entered in the question bank.
* Paper format of any choice can be set.
* Questions selected randomly from the Question Bank.
* A new and instant Question Paper can be generated and printed for each examination instantly.
* Maestro’s Suite is very simple and user friendly.
  1. APPLICATIONS



Applications of Prashnapatrika Nirmata are as follows:

* As the name suggests the soul application of Maestro’s Suite is to generate question paper.
* Basically it can be implemented in Educational Institution.
* It makes the tedious tasks of teachers very lucid.

# CHAPTER – 8

**FUTURE ENHANCEMENT**



Prashnapatrika Nirmata **v2 might have the following features:**

* Password facility to ensure validity of user
* Intelligent validation for each entry.
* User defined data access.
* Data secrecy
* Appointment list to inform you about your appointments.
* Memoranda keep personal information.
* View all log detail

# CHAPTER – 9

**CONCLUSION**

Thus to conclude, we would like to say that we have successfully made the project Prashnapatrika Nirmata as per the plan and schedule.

We also state that we achieved the special features as per the specification.

Security of basic level is also implemented.

The most important feature of one click paper generation was successfully implemented.

# CHAPTER – 10

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