**Flow chart for PIN Generation**

Student Login

Validate Id

Validation failed Entered credential

Pass PIN to Student

Validation pass

Generate 5 digit PIN Valid for 20 minutes

**Activating Test Flow:**

Enter StudentId PIN

Test Activate

Validation

If pass if fail Error

**Flow for Recording the data:**

User Select Sentence to Play

User ask to Input voice

Swing Voice Recorder Interface

Play Audio Engine

Recording Engine

**Read file to play**

**Save data to file (voice.wav)**

**Producing Test Results:**

Student Submit Test

Check Test &Assign Marks

Student Manager

**Return marks**

**Save marks to database**

**Relate work MVC pattern:**

Controller

View

Model

**Packages:**

**com.adaptive.entities com.adaptive.view com.adaptive.manager**

1. **Model (com.adaptive.entities) : This package work as model for the adaptive test since this package class are belows:**

* **Student.java**
* **Question.java**
* **TestDetails.java**
* **OneTimePassword.java**

**These classes are mapped to database by using hibernate and these classes are saved in session and acts as model in adaptive test.**

1. **View(com.adaptive.view) : This package works as View for the adaptive test, we have created the user interface class and this package and model transfer the data to the view for the student view and input the data accordingly. In this package the classes are like:**

* **Login.java**
* **Category.java**
* **TestFrame.java**
* **Writing.java**

1. **Controller(com.adaptive.manager) : This package works as Controller for the every request from the view i.e. frames .**

**So, all the view classes are calling the StudentManager method to perform the operation as following below:**

1. **StudentManager.java**

**Method of StudentManager.java**

* **saveInformation of student**
* **getTestDetails of student**
* **getTestPaper of student**