**Detail for classes and methods**

**1.Package main:** Class main.java

|  |  |
| --- | --- |
| main | Run the program |

**2. Package Note**

2.1 Class KeyNote.java

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| --- | --- |
| KeyNote(String noteName) | Constructor of class KeyNote, insert name of note and create key id for each note |
| getKey() | Return the key id of the note |
| getNoteName() | Return the name of note |
| toString() | Print out the note name |

2.2 Class Keyboard.java

|  |  |
| --- | --- |
| Keyboard() | Constructor of class Keyboard |
| getKeyNote( String keyId) | Return the KeyNote that match the key Id, if doesn’t have return null |
| addKeyNote(String noteName) | Create new KeyNote base on noteName and add this to the list of keyboard |
| getKeyId(String noteName) | Return the key id of the KeyNote that match the key Id, if doesn’t match return null |

**3. Package Record**: Class Record.java

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| --- | --- |
| Record() | constructor |
| Record(String name) | Constructor with record name |
| setRecordName(String name) | Change the name of the record |
| getRecordName() | Return the name of the record |
| addRecord(KeyNote note, Sound type) | Add Keynote and Sound to the record |
| deleteRecord() | This method will delete the last KeyNote and Sound that was added to record |
| toString() | Print out the list of KeyNote that was record |
| playRecord() | Play the record that was recorded, 1 note/seconds |
| getRecord() | Return the full record |

**4. Package Sound**

4.1 Superclass Sound

|  |  |
| --- | --- |
| Sound() | Constructor of class |
| Sound(String keyId) | Constructor with keyId |
| getCurrentValue() | Return the current volume of piano |
| setCurrentValue() | Change the current volume of piano |
| play() | Play the sound |

4.2 Subclass PianoSound. GuitarSound, DrumSound

|  |  |
| --- | --- |
| PianoSound/GuitarSound/DrumSound(String keyId) | Constructor of class |
| play() | Play the sound |
| toString() | Print out the type of the sound |

**5. Screen**

5.1 Class PianoScreen.java

|  |  |
| --- | --- |
| PianoScreen() | Init the content pane of the main screen |
| pianoPane() | Panel of piano GUI |
| recordPane() | Panel of the record button, pause button and play button |
| titlePane() | The title of the application |
| volumePane() | Panel that have slider to change the volume and select the type of sound ( piano ( default), guitar, drum) |
| menuBar() | Have Help screen to represent basic usage and about |
| actionPerformed(ActionEvent e) | Represent the event after press the piano GUI |

5.2 Class Help.java

|  |  |
| --- | --- |
| Help() | Init the content pane of the Help screen |
| Pane() | Create the tabbed pane to that add the panel of basic usage and about |
| basicUsage() | Represent the basic usage |
| about() | Represent the about of the application |