CS 319 - Object-Oriented Software Engineering

Final Report

GENIUS

<u>Group15</u>

Asena Rana Yozgatlı   *21000132*

Serhan Gürsoy   *21400840*

Kutbidin Ululu Meder   *21303000*

Mustafa Said Sarı   *21302224*

Deadline: 24/12/2016

Course Instructor: Bora Güngören

1. Changes of the Design

There is no major change on the design of the Genius application. Design is done using MVC architectural style as stated in the previous report. So there are view, controller and model parts of the implementation which are forming packages. The architectural style is strictly followed in order to make the application clear for maintenance reasons. The design changes are not many between the initially proposed design and the design during the implementation. So, some classes and methods are removed and some new methods are added. So the changes are as follows:

View:

In View package, the major changes are done *OptionLayer* class. Additionally, the relationship between the classes in this package also changed.

Model:

In a new design, there is no *Killer* and *GoogleSearch* classes, others are same.

Controller:

The new controller *Responder and Dispatcher* classes have more methods in this new version. Also, the new *enums* are added.

The final design looks like as follows when Model, View and Controller packages are in together.
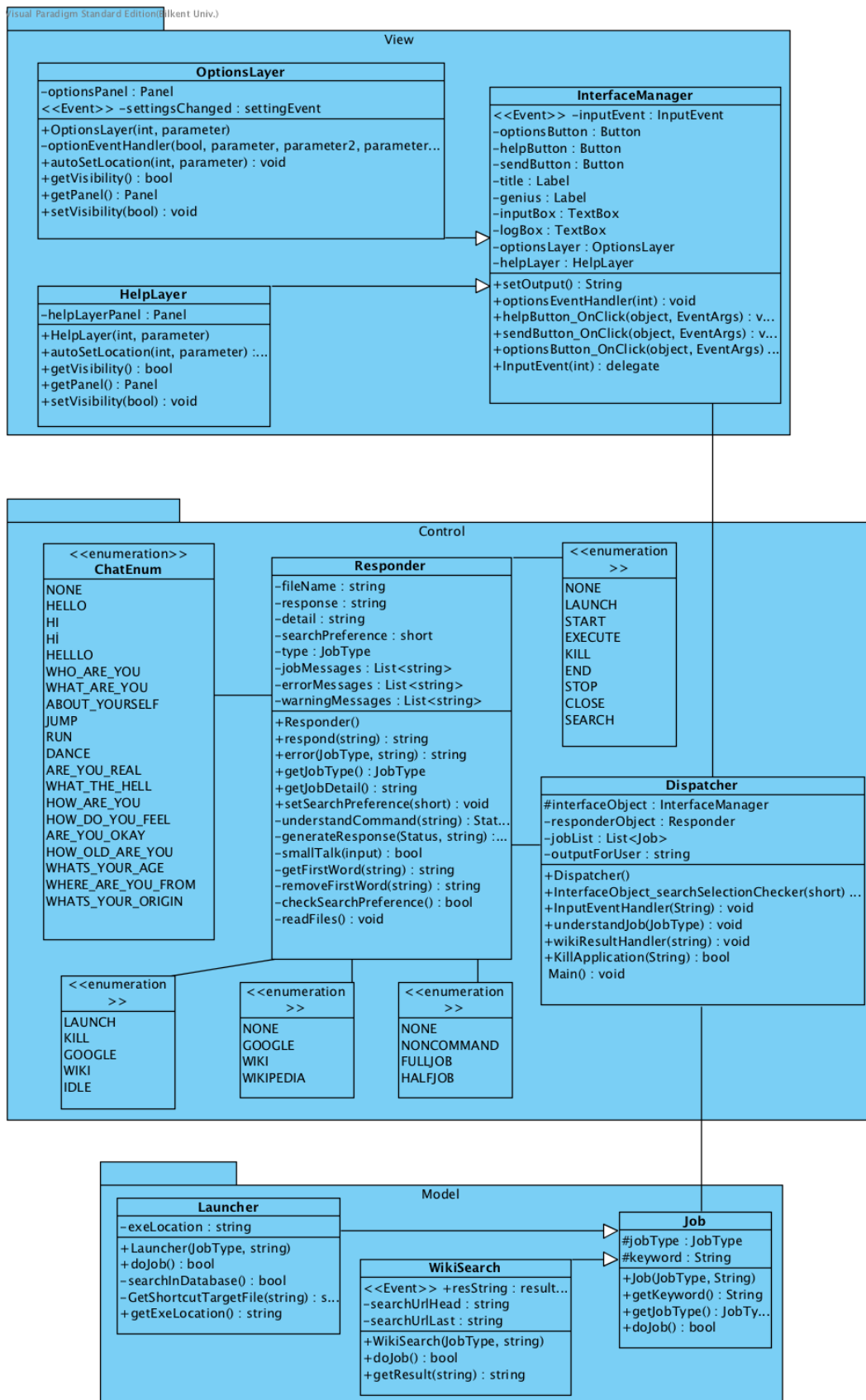
View

OptionsLayer
-optionsPanel : Panel
<<Event>> -settingsChanged : settingEvent
+OptionsLayer(int, parameter)
-optionEventHandler(bool, parameter, parameter2, parameter...
+autoSetLocation(int, parameter) : void
+getVisibility() : bool
+getPanel() : Panel
+setVisibility(bool) : void

InterfaceManager
<<Event>> -inputEvent : InputEvent
-optionsButton : Button
-helpButton : Button
-sendButton : Button
-title : Label
-genius : Label
-inputBox : TextBox
-logBox : TextBox
-optionsLayer : OptionsLayer
-helpLayer : HelpLayer
+setOutput() : String
+optionsEventHandler(int) : void
+helpButton_OnClick(object, EventArgs) : v...
+sendButton_OnClick(object, EventArgs) : v...
+optionsButton_OnClick(object, EventArgs) ...
+InputEvent(int) : delegate

HelpLayer
-helpLayerPanel : Panel
+HelpLayer(int, parameter)
+autoSetLocation(int, parameter) :...
+getVisibility() : bool
+getPanel() : Panel
+setVisibility(bool) : void

Control

<<enumeration>>
ChatEnum
NONE
HELLO
HI
Hi
HELLLO
WHO_ARE_YOU
WHAT_ARE_YOU
ABOUT_YOURSELF
JUMP
RUN
DANCE
ARE_YOU_REAL
WHAT_THE_HELL
HOW_ARE_YOU
HOW_DO_YOU_FEEL
ARE_YOU_OKAY
HOW_OLD_ARE_YOU
WHATS_YOUR_AGE
WHERE_ARE_YOU_FROM
WHATS_YOUR_ORIGIN

Responder
-fileName : string
-response : string
-detail : string
-searchPreference : short
-type : JobType
-jobMessages : List<string>
-errorMessages : List<string>
-warningMessages : List<string>
+Responder()
+respond(string) : string
+error(JobType, string) : string
+getJobType() : JobType
+getJobDetail() : string
+setSearchPreference(short) : void
-understandCommand(string) : Stat...
-generateResponse(Status, string) :...
-smallTalk(input) : bool
-getFirstWord(string) : string
-removeFirstWord(string) : string
-checkSearchPreference() : bool
-readFiles() : void

<<enumeration>>
NONE
LAUNCH
START
EXECUTE
KILL
END
STOP
CLOSE
SEARCH

Dispatcher
#interfaceObject : InterfaceManager
-responderObject : Responder
-jobList : List<Job>
-outputForUser : string
+Dispatcher()
+InterfaceObject_searchSelectionChecker(short) ...
+InputEventHandler(String) : void
+understandJob(JobType) : void
+wikiResultHandler(string) : void
+KillApplication(String) : bool
 Main() : void

<<enumeration>>
LAUNCH
KILL
GOOGLE
WIKI
IDLE

<<enumeration>>
NONE
GOOGLE
WIKI
WIKIPEDIA

<<enumeration>>
NONE
NONCOMMAND
FULLJOB
HALFJOB

Model

Launcher
-exeLocation : string
+Launcher(JobType, string)
+doJob() : bool
-searchInDatabase() : bool
-GetShortcutTargetFile(string) : s...
+getExeLocation() : string

WikiSearch
<<Event>> +resString : result...
-searchUrlHead : string
-searchUrlLast : string
+WikiSearch(JobType, string)
+doJob() : bool
+getResult(string) : string

Job
#jobType : JobType
#keyword : String
+Job(JobType, String)
+getKeyword() : String
+getJobType() : JobTy...
+doJob() : bool

Fig-1 Genius MVC