5. CONCLUSIONS

In this chapter we will conclude the findings from our research problem statement, thereby fulfilling the stated purpose of the study. Findings are based on the empirical data and the analysis. Finally the fifth chapter Conclusion summarizes the main concepts of this thesis and gives an outlook on future extensibility.
With the collaboration of Eclipse, Rich Client Platform can simplify a lot of tasks, especially because of the powerful framework. Also the management of preferences and the handling of user actions are quite intuitive. At the beginning of a project a lot of time has been spent to get familiar with these complex frameworks. However, especially for large or long-living applications this pays off heavily in the long run.

The most difficult algorithmic part of this project was the task to find a “good” positioning and a “good” algorithm for navigating the Earth.

The implementation which I have done for this research contains a plugin that enables user to access the complete navigation and realization of the model of the Earth. Some core building blocks keeping in the mind, it has been developed to provide the design features in this Earth Navigator. At the core of the implementation it contains a mechanism to define the use of the Eclipse framework for Rich Client Application. Keeping the needs of plug in for Earth Navigator in mind, the support of graphical modeling is provided.

This thesis has been started with a short introduction of Eclipse and rich client platform technology. The first chapter *Introduction* describes the current development trends, the problems with Java desktop applications and the resulting need for Rich Clients. Moreover it defines the goals of this work. The second chapter *Review of Literature* copes with the terminology that is used in this work, the Eclipse project and its history. Furthermore the main characteristics of the Rich Client Platform and Earth Navigator are illustrated. Beside this, it describes Rich Client Platform Architecture and all its features. To facilitate the comprehension of the concept Literature Review is also provided here.

The third chapter *Materials & Methods* introduces the Intro Plug-in so that basic concepts about plug in technology get cleared. It is used to demonstrate how the Eclipse Plug-in Model works, and how one can make plug in. This chapter also put some light on OSGi. It introduces OpenGL with its basic features and why we need it. *Design* describes all the code and design of Main project Earth Navigator, with Google Geocoding application programming interface. The fourth chapter *Observations, Result & Discussion* shows the strengths and weaknesses of Plug-in
Architecture which are observed in development of a project i.e. Earth Navigator on Rich Client Platform. It also shows the comparison of Linux and Windows Platform, standard widget toolkit and swing, Problems with Eclipse, with Discussion. Finally the fifth chapter **Conclusion** summarizes the main concepts of this thesis and gives an outlook on future extensibility. The sixth chapter **Recommendations** explains the features of Eclipse and Rich Client platform describes why it is recommended to use Rich Clients Applications. The seventh chapter gives the complete **Bibliography.** A bibliography is a list of the resources (books, magazines, videos, computer programs) which is used in assignment or project. It is important to include where you have found the information. The eighth chapter **Publications** gives detailed information about my publications in Journals and Conferences.

### 5.1 ADVANTAGES OF USING THE ECLIPSE FRAMEWORK

A mechanism of extension point helps the programmer to integrate the new application packages with the new application program easily. Complete Graphical user interface implementation is not necessary for each and every application, so this is handled by the framework. Framework provides the automatic creation of the Graphical user interface for the programs. For achieving the nice Graphical user interface, the order of sequences of application should be declared manually. Once the order of application sequence defined, it can be selected multiple times. For passing the arguments into the application, the command line parameters created automatically. For this purpose parameters are selected by using Graphical user interface. After all this work done, sequence is come into execution line by line in the order which is defined previously. For execution of sequence some files are needed, this can be taking as input or as external sources. The associated file transfers handled by the server middleware are defined at the client level. For this, there is no client interaction is allowed manually. Rich Client platform helps the developer to not work directly on the client system, but if jobs with their sequences are submitted, it can work properly. Once the sequences are created, they can be embedded for the desired output as they can be run independently, can run parallel, or even in a for each loop also.
5. Conclusions

5.2 POSSIBLE EXTENSIONS

After the application was finished, it was navigating the Earth Properly. This application works on top of the Eclipse Rich Client Platform. But the SDK which is provided by NASA supports all the parts of our Solar System. But I have concentrated on the Earth only. It works a little bit as Google-Earth. So we can make a plug in which covers all the parts of Solar System.

--------****--------