Question 11 Essay:

A requirements analysis/specification generally comes as one part. First the analysis is done, then the information gathered in the analysis is used to create an accurate specification for the client.

During a requirements analysis every aspect of the future product must be considered, including functionality, aesthetics, performance requirements, etc. When the requirements of the project have been laid out, they must also be critically analyzed by both the client and development firm. This leads them to create a final vision of the project that is both fitted to the clients needs and achievable for the firm. Without an effective requirements-analysis the developers will not know what they need to develop, with a lack of direct guidance it can lead to much more variance in the final project, leading to less satisfied clients. This is bad for both the firm and the client as a worse product is produced or the client and the firm are less likely to get return business.

When a sufficient requirements analysis has taken place a requirements specification must be created; using the results from discussion and research a precise set of requirements can be written out for the developer to follow. This specification can then be used in a legal document for the development process therefore, assuming the contract is met, the firm will be legally protected from any backlash from unsatisfied customers.

In the case of the software house mentioned and the bank they are developing for these points are especially important, this is because missing parts of a system could contribute to customers of the bank being unable to access their money or deposit their money, this can cause a chain reaction of unpaid bills, causing tensions between the banks customers and their creditors. This in turn can lead to tension between customers and the bank itself, leading to potential loss of customers and revenue. Furthermore an effective requirements analysis/specification are also important in this scenario due to the complexity of the product being developed, a bank is certain to have complex security systems and will use multiple systems to allow as many people as possible to access their funds, all of these factors adds to the difficulty of the development task and as ‘a suite of programs’ is being developed the development task could become quite large and complex very quickly and with it the requirements will also grow.

The decision by the software house to use ‘top-down design methodology’ and ‘standard modules’ is an interesting and progressive choice. The use of standard modules is an obvious one that is often overlooked due to the opportunity for a firm to do more specialist development for their own system, however standard modules have multiple advantages that can outweigh the drawback of losing future work. The most important advantages of standard modules are the

simplicity – They are generally very well documented and have plenty of support available,

maintainability – Standard modules will generally be supported and updated on their own as long as the language that they are written for is maintained, this means that there is fewer points of failure in the system, although you might have to rely on a corporation updating their work into the future.  
Mainstream acceptance – Any developer familiar with the language is also likely to be familiar with the standard modules involved in it, this means that they will be able to more easily learn to maintain the software created by the firm, allowing for a better experience for the bank going into the future.

Another good, simple decision made by the firm is the choice of top-down design. This means they will work down from the main tasks, using decomposition to break them down into the sub-sections from there. This method means that the complex, multi program system being developed can more easily be mapped and controlled by the firm, making it harder to lose track of what is being developed for what. Additionally it can ease time management due to the clearer view of what is important to the end goal and what is not.  
  
To conclude the software house has made good, maintainable decisions for their development task for the bank and, assuming they create an effective requirements specification from an effective requirements analysis they will be able to create useful products for the bank.