***List for Antonis***

**Criterion A – Planning**

**Defining the problem**

Antonis, the client, works as an electronic engineer for a small TV station in Thessaloniki, Greece. His job is to maintain the library of the TV channel, which includes all the shows purchased by the channel, and to recommend interesting and high-quality shows so that the channel can air every week. After his suggestions are approved by the head manager of the company, his job also is to give the actual DVD of each show to the person who is responsible for airing them.

Currently Antonis writes down on his notebook the title of each show purchased by the company. For each show, he adds also certain details: a unique ID, the producer company, the duration, the production date, the rating, the times aired, the last date aired and the physical location of the DVD of each show.

Antonis uses this list to rank the shows according to certain characteristics in order to determine which shows might attract more viewers. Then he needs to find the physical location of the DVDs of these shows in order to give it to another employee. However, the current system has become inadequate since the list is getting larger and larger each week. Antonis wastes plenty of time searching each page of his notebook and has trouble finding the most interesting shows.

He decided to use a computerized system that will simplify the task of finding and ranking shows. Thus, he needs a user-friendly program that will automatically provide the details required to rank effectively the shows aired. Antonis is a friend of my father and asked me, as a Computer Science student, if I could create such a product as part of my internal assessment.

**Word Count:** 284

**Rationale for proposed product**

In my opinion, a flat-file database would be the best solution for Mr. Pantermarakis. Such manipulation of data can be effectively and efficiently done through the construction of an application by using Java.

Java is a programming language that allows the programmer to use thousands of methods and manage thousands of objects and classes in the most convenient way. In this case, Java is found suitable since Antonis will not need to search for the desired details to rank the shows, but the program will automatically take into consideration specific requirements that will output few shows that will meet the needs of the client.

I decided that Java programming is the most beneficial solution in this case because the complexity required for such a problem can be done more effectively with the use of Java. Also, the computer that Antonis uses in his working environment is very old and is running Windows Vista, and fortunately it has Java installed. Moreover, Java is free which implies that neither Antonis nor the company will need to pay additional fees for such a program. Through the use of Java, the client also has the ability of encrypting and decrypting the file which means that Java offers greater security. Furthermore, Java offers the option of backing up the existing file which decreases the probability for data loss to occur.

Finally, since many shows are added to list either every day or every month, the list may be handled easily using an object-oriented approach.

**Word Count:** 249

**Success Criteria**

1. A user-friendly command line interface.
2. Use of a main menu
3. A list of the shows purchased by the company
4. Option to add new shows
5. Validation of data input
6. Option to remove existing shows
7. An efficient searching tool that will provide the show desired
8. A searching tool that finds the location of a show’s DVD
9. Arrange/Sort the shows
10. Update a show
11. Use of a classification system
12. A method that will recommend shows to the client
13. A method that backs up the file
14. Encryption/Decryption method for improved security