Describe the project that you wish to undertake. It should be a written proposal and should include:

1. A summary of the problem that your program will solve or application that your program will implement.

The problem I will be solving will be the need for an easy way to manage a contact list and be able to see any one specific contact or contacts within their contact’s list.

1. A description of what you expect will be the overall input and output of the program. If there is a graphical user interface, draw a picture of what you expect the interface to look like.

The overall input will be the choosing of the options of adding or removing a contact, editing a contact within the list, printing any one contact or list of contacts within an a range of letters.

When the input given to add/remove/edit a contact is chosen, it was display a question which contact would you like to add/remove/edit? And let the user choose by name. Once the contact has been chosen, it will remove the contact, if it was requested to be remove, or then show a reply of inputs needed to add a new contact or edit the contact. It will then update the contact (and list if need be).

When they choose to print out a single contact, the program will ask which contact by name and it will print out the information of the contact.

If the user wants to print out the contacts within a certain range, it will ask what range of letter(s) they want and once given (after checking the range), it will print it out

1. A description of what ADTs will be used and what information they will store. Include a brief justification for each of your choice.

I will use an Arraylist/list to store the information. I will create a class to have each contact individually (like name, phone number, address, etc) and then it will be put into the list.

I chose this adt because most of the others wouldn’t make sense. Stacks and queues aren’t made for something like this since it doesn’t store the information in the way I need it to. Bag doesn’t make sens either since it isn’t set up in a way where I can manipulate in a way I want to.

1. A description of the programming tools that you plan on using (programming language, software development environment, design tools, etc.)

I will be using java to create this project since it is my strongest language. I will be using Intellij as my IDE since I am most comfortable with it and I will use an outline to help guide me in making the project so make sure I am making the right methods for the project