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Cs 499 Computer Science Capstone

Southern New Hampshire University

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3-2 Milestone Two: Enhancement One: Software Design and Engineering

The artifact chosen for Enhancement one was my Contact and ContactService classes. This project was created in CS 320: Software Testing, Automation, and Quality Assurance. These classes were later tested to ensure that the exceptions were handled properly.

I chose this artifact as it shows that I can run unit tests as well as create array lists with getters and setters in Java. Java is a language I would like to write code in so this is another reason this project was chosen. This program was lacking was a console log that someone would be able to be asked for data and to input that data. By adding a console log someone would be able to interact with the array list “contactList”. The user is now able to run the application and it will display enter contact, display contacts, and exit. The user chooses an option, and a switch case takes input from the user to display the data that correlates to the user’s choice. I created a main method that contains all the code that runs the console log. The artifact now allows the user to see the options displayed as well as enter their choices. This was done with logic and the main method that called different methods from the class contactServices.

I was able to show that I can use innovative skills and techniques for implementing design solutions to accomplish my goals. This was done by using the getter and setter methods that I created in my Contact class in combination with my addContact method in the ContactService class. I showed that I can program solutions to solve logic problems in software. When I was thinking about how to create a console log I needed to take into consideration the addContact method and how I would need to implement it to my Contact class and switch statement. I was able to take the logic and have my switch statement display the options for the user to choose from. The algorithm then displayed the proper information for the user to enter. In the end, it displayed the contact that was just entered and allowed the user to choose from the options again. Talking about what I did and how I did it shows that I can discuss what was done and how it met the course objectives of this project. I would like to update my program to include all my methods such as the updates and delete methods. For this assignment, I wanted to make sure that I created an interactive console log, and I accomplished that.

The process of enhancing this was challenging at first. I was unsure of where to start. So, I had to think about what the console log had to do first, and that was to display the options. I added a main method as I knew this is what would need to run the application to display the console log. From there the scanner had to be inserted into the code so the user could interact with the program. Then I made a while loop that contained the options the user could choose from. After that, the switch cases came in. I had a hard time getting my switch case to work because I never set my scanner at the end of the while loop. So, the user was not able to choose a case which caused errors when I set the value of choice to 0. Once the scanner was in, I was all set. Another thing I learned was that I need to add line 68

address = address + scanner.nextLine();

so that my address would take the next line and not just the next int. I was unable to add 1115 3rd st sw, it was only displaying 1115. Lastly, I needed to figure out how to use the addContact method from the contactServices class. I struggled to import the contactService class into my Contact class because they were in the same package. I figured out that if I used import like Contact.ContactService that pulled the desired class from the package into the class Contact. From there I was able to call my add contact method for contact and add it into the array list. My biggest takeaway from this project is to bite off small sections of logic and take it in steps vs a whole project. Once I started to do this my project progressed much better.