Winter Sem 2019-2020

CSE1007 – Java Programming Lab

Practice Problems

1. Write a program to find the factorial of a number using command line arguments.

2. Write a program to print the multiplication table of a number.

3. Write a program to check whether the given number is an Armstrong number or not.

4. Write a program to check whether the given number is a prime number or not

5. Write a program to generate the following patterns.

i) 1 ii) *

1 2 * *

1 2 3 * * *

. * *

*

6. Write a program to generate the Fibonacci series.

7. Write a program to sort n numbers in ascending order.

8. Write a program to search a number among n numbers using binary search.

9. Write a program to read ‘n’ numbers and print their sum and average.

10. Write a program that accepts a number as input and convert them into binary, octal and hexadecimal equivalents.

11. Write a menu driven program to i) append a string ii) insert a string iii) delete a portion of the string.

12. Write a program to check whether a string is palindrome or not without using functions.

13. Write a menu driven program to i) compare two strings ii) get the character in the specified position iii) extract a substring iv) replace a character with the given character v) get the position of a specified substring/character.

14. Write a program to change the case of the letters in a string. Eg. ABCdef abcDEF

15. Write a class with the following methods:

wordCount: This method accepts a String object as an argument and returns the number of words contained in the object.

arrayToString: This method accepts a char array as an argument and converts it to a String object.

mostFrequent: This method accepts a String object as an argument and returns the character that occurs the most frequently in the object.

16. Create a class Student (Regno, Name, Branch, Year, Semester and 5 Marks). Add methods to read the student details, calculate the grade and print the mark statement.

17. Write a program that displays an invoice of several items. Create a class called Item with members item_name, quantity, price and total_cost and methods to get and set values for the members. Derive a new class to print the bill using Item class.

18. Create a class Telephone with two members to hold customer's name and phone number. The class should have appropriate constructor, input and display methods. Derive a class TelephoneIndex with methods to change the name or phone number.Create an array of objects and perform the following functions.
a. Search for a name when the user enters a name or the first few characters.

b. Display all of the names that match the user's input and their corresponding phone numbers.

c. Change the name of a customer.

d. Change the phone number of a customer.

19. Create an abstract class called BankAccount with members customer name, date of birth, address, account number, balance and member functions to get values for the members and display it. Derive a class SavingsAccount with member functions to perform deposit and withdraw in the account. Write a menu driven program to create a new account, perform withdraw, deposit and delete an account.

20. Create an Interface with methods add(), sub(), multiply() and divide(). Write two classes FloatValues to perform arithmetic operations on floating point numbers and IntegerValues on integer numbers by implementing the interface.