slip16

```
class s16q1 {

   public static int sumOfDigits(int n) {
         if (n == 0) {
         return 0; //base
       }
       return (n % 10) + sumOfDigits(n / 10); //recursion
   }

   public static void main(String[] args) {
      int num=2416;

       int sum = sumOfDigits(num);
       System.out.println("The sum of digits is: " + sum);



   }
}
```

```
import java.util.Scanner;
import java.util.Arrays;

class Emp {
```

```
    static String[] empNames;


    public static void sortEmpNames() {
        Arrays.sort(empNames);
    }
}

public class s16q2{
    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);

        System.out.print("Enter the number of employees: ");
        int n = s.nextInt();
        s.nextLine();


        Emp.empNames = new String[n];


        System.out.println("Enter the employee names:");
        for (int i = 0; i < n; i++) {
            System.out.print("Employee " + (i + 1) + ": ");
            Emp.empNames[i] = s.nextLine();
        }
```

```
        Emp.sortEmpNames();



        System.out.println("\nEmployee names in ascending order:");
        for (String name : Emp.empNames) {
            System.out.println(name);
        }

        s.close();
    }
}
```

```
class Rectangle:
    def __init__(self, length, width):
        self.length = length
        self.width = width

    def area(self):
         return self.length * self.width

    def perimeter(self):
        return 2 * (self.length + self.width)

rect = Rectangle(10, 5)
```

```
print(f"Area of rectangle: {rect.area()}")

print(f"Perimeter of rectangle: {rect.perimeter()}")
```

```
import tkinter as tk

from tkinter import messagebox

class ListboxApp:

    def __init__(self, root):

        self.root = root

        self.root.title("Listbox Example")


        self.listbox = tk.Listbox(self.root, width=50, height=10)

        self.listbox.pack(pady=10)


        self.entry = tk.Entry(self.root, width=52)

        self.entry.pack(pady=10)


        self.add_button = tk.Button(self.root, text="Add Item", command=self.add_item)

        self.add_button.pack(pady=5)


        self.print_button = tk.Button(self.root, text="Print Selected",
command=self.print_selected)

        self.print_button.pack(pady=5)


        self.delete_button = tk.Button(self.root, text="Delete Selected",
command=self.delete_selected)

        self.delete_button.pack(pady=5)
```

```
def add_item(self):
    item = self.entry.get()
    if item:
        self.listbox.insert(tk.END, item)
        self.entry.delete(0, tk.END)
    else:
        messagebox.showwarning("Warning", "Please enter an item.")

def print_selected(self):
    selected_items = self.listbox.curselection()
    if selected_items:
        for index in selected_items:
            item = self.listbox.get(index)
            print(item)
    else:
        messagebox.showinfo("Info", "No item selected.")

def delete_selected(self):
    selected_items = self.listbox.curselection()
    if selected_items:
        for index in reversed(selected_items):
            self.listbox.delete(index)
    else:
        messagebox.showinfo("Info", "No item selected.")
```

```
root = tk.Tk()

app = ListboxApp(root)

root.mainloop()
```