

ADDIS ABABA SCIENCE AND TECHNOLOGY UNIVERSITY

***DEPARTMENT OF SOFTWARE ENGINEERING***

Fundamentals of Programming II

**Section: E (Group V)**

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**Payroll Management System**

Some features for this program:

* **List of data it holds**
  + Employee information
    - Name
    - ID
    - Age
    - Billing Address
    - Residence Address
  + Amount payed to employees each pay period
    - Weekly
    - Monthly
    - Yearly
  + Amount of tax
    - state tax
    - federal income tax
  + Other attributes like
    - Health Insurance
    - Pension etc.
  + Amount of overtime bonus and its pay amount
  + Payment method
    - Bank transfer
    - Cash pickup
* **The system computes**
  + Net pay
  + Gross pay
  + Holds the data for employee’s payroll activity
  + Overtime bonus
* **Display the given data in table from**
* **Have other functions like**
  + Search function
  + Sorting function

**Student Record Management System**

We will create a program that has the following features: -

* **Display many attributes of a student**
  + Name
  + ID (auto-generated)
  + Age
  + Gender
  + Individual Subject Mark
  + Current GPA (calculated)
  + Cumulative GPA (calculated)
  + Dorm: Block number, Room number (auto-generated)
  + Department
  + Year
* **Search Function**
  + Search using ID
  + Search using Name
* **Sorting**
  + Sorting using Name
  + Sorting using ID
* **Statistics** (using numbers or percentages)
  + Statistics on Age
  + Statistics on Gender
  + Statistics on Department
  + Statistics on Year
* **Be able to add new students**

If possible, we may update it to have its own database system using file stream in C++.

**Bank Account Management System**

* **List of the possible data that will be captured:**
* Account No. of the account owner
* Name of the Account owner
* Residence Address
* Phone number
* Id number
* Type of the Account,
* Initial amount
* Deposit amount
* Withdrawal amount
* Account No. of the receiver
* Name of the receiver
* **Possible Service the System compute are listed below**
* Opening a bank account for new customer
* Money depositing service for customers
* Money withdrawal service for customers
* Balance inquiry service for customers
* Database for all account holders
* Terminate a bank account
* Modifying the account details
* Calculate and add interest to the account monthly
* Transfer money to other's account

**Some other features**

1. Log in or Sign up function
2. The initial capital of the bank
3. Give award for 3 people who got high interest every year
4. Give award for 5 people, who deposited more than 1000 give lotto number, by lottery. For every more than 1000-birr deposit give a lottery number