

Institute of Business Administration

Spring 2021 – Object Oriented Programming and Techniques

Class ERP ID – 50380

Assignment 1

Problem Statement – Computerization of Health Records

A health care issue that has been in the news lately is the computerization of health records. This possibility is being approached cautiously because of sensitive privacy and security concerns, among others

Computerizing health records could make it easier for patients to share their health profiles and histories among their various health care professionals. This could improve the quality of health care, help avoid drug conflicts and erroneous drug prescriptions, reduce costs and, in emergencies, could save lives.

Design a HealthProfile class for a person. The attributes should include the person's first name, last name, gender, date of birth (consisting of separate attributes for the month, day and year of birth), height (in inches) and weight (in pounds).

Your class should have a constructor that receives this data. For each attribute, provide mutator and accessor. The class also should include methods that calculate and return the user's age in years, and body mass index.

Write a Java application that prompts for the person's information, instantiates an object of class HealthProfile for that person and prints the information from that object—including the person's first name, last name, gender, date of birth, height and weight—then calculates and prints the person's age in years, and BMI,. It should also display the BMI values chart given below

The formula for calculating BMI is

$$\text{BMI} = (\text{weightInPounds} \times 703) / (\text{heightInInches} \times \text{heightInInches})$$

BMI Values Chart

Underweight: less than 18.5

Normal: between 18.5 and 24.9

Overweight: between 25 and 29.9

Obese: 30 or greater

Submission Requirement

First copy class definition followed by the application program in a single text file (preferably in any text editor) and save the file as ***YourName_ERPID_A1.java***