CIS 225

MidTerm Exam – Patient Log

The Nub’s Nob ski patrol needs a program that allows patrollers to enter incident information and generate reports.

Read entire exam before starting your code.

1. Data entry – patient information

a. Last name

b. First name

c. Auto-generated unique 5-digit ID number

d. Injury location:

i. Arms

ii. Abdomen

iii. Head

iv. Legs

e. Injury severity: 1-10 (10 being most severe)

f. Type of injury:

i. Break

ii. Sprain/strain

iii. Burn

iv. Soft tissue slash

v. Soft tissue blunt

g. Address

h. Age

2. Data storage

a. Store ID numbers, patient info, and injury information objects together in a collection.

3. Process information

a. Calculate average injury severity for month

i. Total for all

ii. Broken down by ages (1-5, 6-10, 11-15, 16-20, 21-50, 50+)

b. Determine if any customer has more than one incident in a month

4. Report generation

a. Generate report for each of #2

b. Generate report that displays patient’s name, age, address and all injury info for any injuries that are severity 8 or higher.

5. General requirements:

a. Good abstraction

b. High cohesion and low coupling

c. Demonstrate each: ArrayList, Iterator, HashMap, & HashSet

d. Adherence to all of our good programming practices (magic numbers, self-documenting code, etc.)