Northern Michigan University (Marquette Co, MI)
CS222-61-21W Computer Science I (Andrew A. Poe)
Practice Quiz 4
Thursday 18 February 2021 10:00 A.M. EST
Time: 10 minutes

Given the following classes:

```
class LL {
 private:
  LLN *head;
};
```

```
class LLN {
 private:
  string data;
  LLN *next;
};
```

write the method

```
string LL::SmallestCap ();
```

This method returns the shortest string in the linked list beginning with a capital letter. If there is no such string in the list, the method should return the empty string. If more than one qualifies, I don't care which one you return. For example, if the linked list were Bill-->and-->Ted-->built-->a-->time-->machine , the method should return "Ted".

Do not use loops; use recursion only. You may write additional methods in LL and LLN if you wish. You may assume that standard constructors, destructors, accessors, and mutators have already been written.

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```
string LL::SmallestCap () {

 if (!head) return "";
 return head->SmallestCap();
}

string LLN::SmallestCap () {

 string s = "";
 if (next) s = next->SmallestCap ();
 if (data == "" || data[0] < 'A' || data[0] > 'Z')
return s;
 if (s=="") return data;
 if (data.length() < s.length()) return data;
 return s;
}
```