

QUALITIMES

A QUALITY THAT DOES NOT CHANGE WITH TIMES

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Editor's Choice...

Editorial Panel

- Geeta S
- Jyoti R
- Sunmeet S
- Venu M

(Want to be a part of the panel. Forward your interest to:
qualitimes@qualitreeinc.com)

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US : DIVERSITY IN DENSITY

Charanjeet S Minhas

One of the famous freedom leaders of India had said that our diversity is our strength. However, since 1947, the believers in it are growing smaller though the rhetoric may have intensified. It has become increasingly popular to speak of racial and ethnic diversity as a civic strength across the globe. From multicultural festivals to pronouncements from political leaders, the message is the same: our differences make us stronger.

Recently I drove over 7,000 kilometers in US with an intention to see as much of less talked about America as I can. Roads in mid west of US are long, visible and empty- a complete contrast to the east coast where the visibility of the road is restricted by turns and half a mile is unusual. Speed limit of 75m/hr (app 120km/hr) still lets you scan 15-20 miles of vacant radius around your vehicle. The slim vehicular traffic is testimony to thin population density of the region.

While the highway and population density thins- moving away from east coast- the newly developed cities of the region have high density of the state of the art fly-over bridges. Not only the look and construction of the houses is different, they have flat roofs, and are part of much less dense housing colonies. Espanola in the state of New Mexico is where I lived with my family in a Sikh camp for a week. Town is right next to Los Alamos famous for producing Fat Boy and Thin Man – world's first nuclear bombs used over Nagasaki and Hiroshima. A small, remote, hardly visible town has highest density of IQ in US. It is difficult to imagine that the neighboring Espanola will have US' largest security company: Akal Security. Largest employer in the region, the company was founded by a Sikh. In respect, the local restaurants there have Satnam Pizza, Akal Taco, and Sat Sri Akal Enchilada.

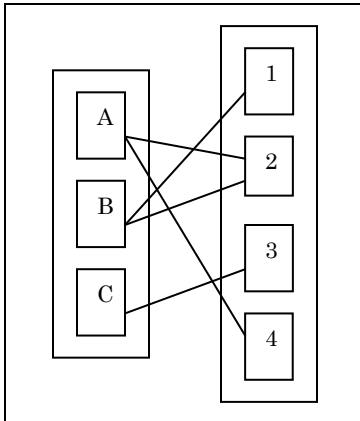
What really jolted and stirred my conscious was a group of 3000 white people on a top of a nearby mountain, called Guru Ram Das Puri, chanting Satnam Waheguru at 3.15 am. I wonder if that was density of diversity or it is all diversity in density! Let me know dear readers!!

Has anything to share - We are all ears!!! Please send in your articles to: qualitimes@qualitreeinc.com

Unit Testing - Extreme Programming Method

The simplest notion proposed by this popular method of programming is “test a little, code a little”. The developer or programmer thinks about testing his class or module even before implementing or coding it. We will go over a small example to have a view of how this paradigm of programming binded with testing works.

Suppose we are implementing a collection class named ‘Relation’ representing a mathematical relation. A Relation of size N simply consists of a set of pairs of objects (a_i, b_i) , where $i = 1, 2, \dots, N$. The set of objects $\{a_i\}$ is called the domain, and the set of objects $\{b_i\}$ is called the range.



A relation between the letters $\{A, B, C\}$ and the numbers $\{1, 2, 3, 4\}$ is shown in the preceding figure. The letters form the domain and the numbers form the range. This relation contains the pairs $(A, 2)$, $(A, 4)$, $(B, 1)$, $(B, 2)$, and $(C, 3)$.

A Relation is similar to a Map, except that a given domain object can be related to more than one range object, whereas in a Map there can only be one range object for any given domain object.

After some consideration a few of the core methods of Relation will be:

- Adding a pair of objects.
- Removing a pair of objects.
- Retrieving the size of the Relation.
- Checking if a given object is in the domain of the Relation.
- Retrieving the set of objects corresponding to the range of a given domain object.

How should we approach the implementation and testing of these methods with this abstract data type to start with?

Writing Production Class

According to the guidelines of extreme programming, we define as few methods as we can to get away with at first and give these methods any simple implementation that allows us to compile our production class:

```

public class Relation<E, F>
{
    /**
     * Inserts the specified pair.
     * @pre domainElement not null
     * @pre rangeElement not null
     */
    public void add(E domainElement, F rangeElement) {
    }
    /**
     * Removes the specified pair.
     *
     * @pre domainElement not null
     * @pre rangeElement not null
     */
    public void remove(E domainElement, F rangeElement) {
    }
    /**
     * The number of (domainElement, rangeElement)
     * pairs in this relation.
     */
    public int size() {
        return 0;
    }
    /**
     * The set of domain elements of this relation.
     */

```

Program Contd.. ➡

```

    public Set<E> domain() {
        return null;
    }
    /**
     * The set of range elements of this relation.
     */
    public Set<F> range() {
        return null;
    }
    /**
     * True if and only if the given object
     * is in the range of this relation.
     */
    public boolean inRange(F obj) {
        return false;
    }
    /**
     * The range of the relation corresponding
     * to the specified domain element.
     */
    public Set<F> rangeFor(E domainElement) {
        return null;
    }
}

```

To be Contd..

JUMBLE

TECAU ○○○○○

TLFEE ○○○○○

THSOL ○○○○○

AITG ○○○○○

JANTU ○○○○○

Participate and win; the first correct entry wins a gift of \$10.00*.
Send in your completed entries to:
jumble_qualitimes@qualitreeinc.com



Each day is a beautiful gift. To be part of your life is a priceless gift too. (L to R : Sujin K. & Madhukar G.)



- Punches, pulls and bumps!!*
- July 01 - Naidu Vasi R.
 - July 03 - Brajesh M.
 - July 03 - Sridhar S.
 - July 05 - Rajnish M.
 - July 10 - Hari K.
 - July 14 - Ome L.
 - July 15 - Subhash R.
 - July 15 - Ramana Naga
 - July 18 - Ravi Raj J.
 - July 18 - Siva Prasad K.
 - July 21 - Rakesh B.
 - July 21 - Chakradhar
 - July 24 - Usha B.

Qualitree participation in TTCN-3 User Conference along with Testing Technologies.(L to R : Atul K. & Matthias Montag)



Qualitree team with a team from Testing Technologies having a good time.



Close your eyes and blow all candles - Qualitimes wishes all your dreams come true. (L to R : Swetha K., Shameem S., Gopi U.)



June 2012
Sreekanth M



For an outstanding contribution in the QualiClub development & evolution, Sreekanth M was chosen as the Star of the Month for June, 2012.



Qualitree Team in TTCN-3 User Conference.





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BUZZ OF THE MONTH

- Qualitree participated in TTCN-3 User Conference along with Testing Technologies- Platinum Sponsor of T3UC,2012. Participants from Sasken, Wipro, C-DOT, LNT Infotech, Huawei, Intel, Siemens, NSN and others visited our booth to know more new features of TWorkbench and TTplugins.
- Qualitree Solutions will represent Nextragen as their business partner for India Market.
- Government of Saskatchewan has entered into a multiyear contract with our Canada office.
- Active discussions are in progress with an enterprise specific solutions company based in Delaware for QTP advanced training.



Santa calls the Help Desk to complain a problem. **Santa** : When I type password, it just shows star star star star.
Help Desk: Those stars are to protect you, so that if a person standing behind, he can't read your password.
Santa: Yeah, but stars appear even when there is no one standing behind me.

Word Puzzle

In the following word puzzles, a word starts and ends with the same letter. Figure out the words and win*

1	_ I D O _	
2	_ L U F _	
3	_ L U M _	
4	_ R O U _	
5	_ E N A N _	

* Send in your entries to "qualitimes@qualitreeinc.com" with the subject "Word Puzzle"
 The first correct entry wins a gift of \$10.00

Answers to last month's Jumble:

- DELTA
- ATLAS
- STYLE
- FLAX
- BAJRA

Last Month's Winner:
Sarabjit K

Other correct entries:
 Rakesh B

Answers to last month's Word Puzzle:

- SALACIOUS
- YEARLY
- TRINKET
- EFFULGENCE
- XEROX

Last month's winner:
Srikanth K

Other correct entries:
 Rakesh B, Annavi K, Rakesh B