

# Sparsh

Volume-1, Issue-2

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## From the desk of CEO

"Time & Tide Wait for None".

Now a new word "Technology" needs to be added to this old proverb & to be read as under:

**"Technology, Time & Tide Wait for None".**

This means that **TECHNOLOGY** cannot wait for you to accept it. It has been transforming every day, every hour & every minute. If we do not keep ourselves updated with these very changes, we'll soon become obsolete, irrelevant & outdated.

**Technology**, in recent times, has changed our style of living, speed of thinking, way of looking at things including our life & also doing the things without being in trauma of "Time & Space".

What we saw yesterday is not there today & what we see today will not be there tomorrow.

Have a look around & you will find that the **TECHNOLOGY** has become **DISRUPTIVE**, which means that it regularly disrupts & displaces established market, leading firms, products and alliances & creates a new market and value network thereby transforming life, business & global economy. Companies like apple, uber, airbnb, flipkart, oyo etc. are excellent examples of such disruptions.

**BIG** became **SMALL**, then **MINIATURES** & now **MINISCULE**.

**Crawled from KB, walked up to MB** and ran very fast to **GB & TB** and now on **PB**.

Computing from **MAIN FRAME** (usually occupied a room of space), to **MID FRAME** & then to **MINI** & now powerful devices on Laps & in Hands.

**Intranet to Internet & now on Clouds!** Go on & you will find this list unending.

Now one cannot think becoming a **TECHNOLOGY WIZARD** after doing some Post Graduation or Doctorate. He has to be very much on his toes & has to be alert & vigilant to keep a track of innovation, creativity & vision.

He needs to think & look beyond the **HORIZON!!!**

This is true not only for individuals like us but also for Software Companies, Business Houses, Educational Institutes etc. & of course, the 'NATION'.

Now is the time not to see the things happening but making the things happen.

You cannot sit at rest..... Lets make CR2 a major disruptor in the knowledge world.

Wish you all the best!!!

Regards,  
Suyash K



## Editor's Desk

Dear Readers,

First of all on behalf of whole Editorial Team, I would like to thank our readers for giving a warm welcome to the first quarterly issue of "**Sparsh**".

I am now glad to present before you the second issue of **Sparsh**.

In this issue, we have introduced some new updates @ CR2 along with the Learning Sessions and sharing of experiences of our colleagues.

Also similar to the first issue, this issue contains Knowledge Sharing and Management Stories accompanied by Happy Moments @ CR2.

I would like to thank the Management for making me a part of "**Sparsh – Editorial Team**"

Suggestions and Feedback are welcome for improvement of Sparsh.

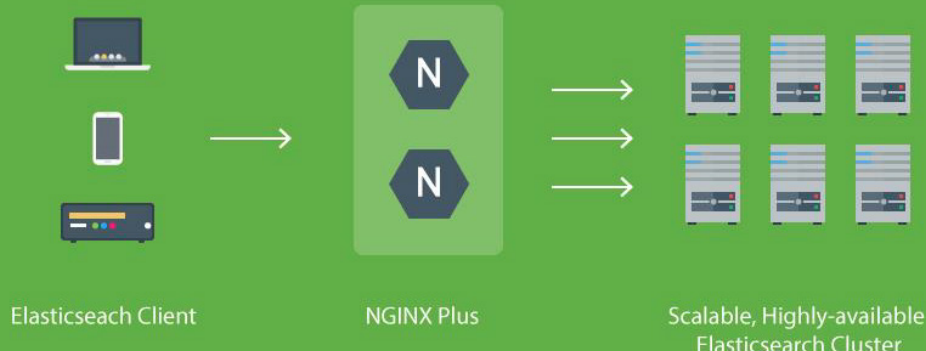
Hope you enjoy this issue and be inspired to be a part of it in future.

Deepal Mehta  
Editor - Sparsh



# Knowledge Sharing

## ElasticSearch



ElasticSearch is a fast growing technology built on Lucene. The main scope of ElasticSearch is to be a search engine. It also provides a lot of features that allow you to use it for data storage and data analysis. ElasticSearch has many innovative features like: JSON/REST-based api and natively distributed in a node/cluster.

ElasticSearch can be set up on a physical or virtual server depending on RAM, CPU and disk space.

### TERMS TO UNDERSTAND:

#### Node

- Each instance we install on physical or virtual server is known as a node.
- Combination of node creates cluster.
- On node startup, the node searches for other cluster members and checks its index and shard status.
- Node configuration can be done through `elasticsearch.yml`
- Replication of node can be done using master node and secondary nodes.
- If master node dies, a master-eligible node is elected to be the new master node.
- Index (plural Indices)
- Index is main data container in node.

#### Mapping/type

- In an index, data is grouped into data types called mappings.

#### Field

- A mapping describes how the records are composed called field.

#### Document

- Every record must be stored as a json object.

#### Shard

- To manage huge volume of records, it splits an index into multiple shards.
- Every record is stored in a shard. It's algorithm is based on record ID.
- So to update any record, it hits only shard that contains your object.

### The following scheme compares ElasticSearch structure with SQL and MongoDB:

There are 2 basic types of augmented reality depending on the identification of the object or view scene.

#### 1. Marker-based AR

It uses a camera and a visual marker baked into the content that a marketer wants to present. The viewer holds up the content to the camera to see the AR in action. Basically this type of AR is capable to identify 2d images, bar-codes. Marker-based AR is the most prevalent and easiest to accomplish.

ElasticSearch	SQL	Monogodb
Index (Indices)	Database	Database
Shard	Shard	Shard
Mapping/Type	Table	Collection
Field	Field	Field
Object (JSON Object)	Record (Tuples)	Record(BSON Object)

```

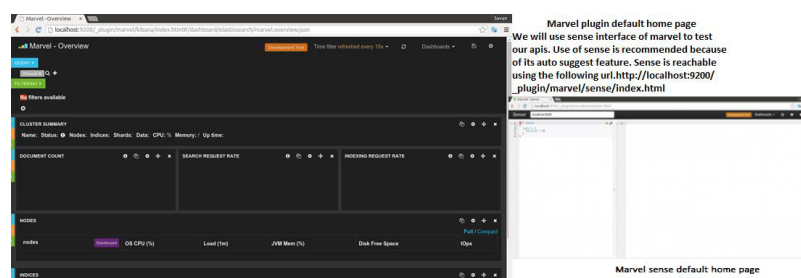
savan@savan:~$ sudo service elasticsearch start
* Starting Elasticsearch Server
savan@savan:~$
    
```

**Installation:** You need to download required ElasticSearch package from the following url:<https://www.elastic.co/downloads/elasticsearch> for your operating system. Once installation process completes, ElasticSearch will be ready to use. In this article I have used Ubuntu server.

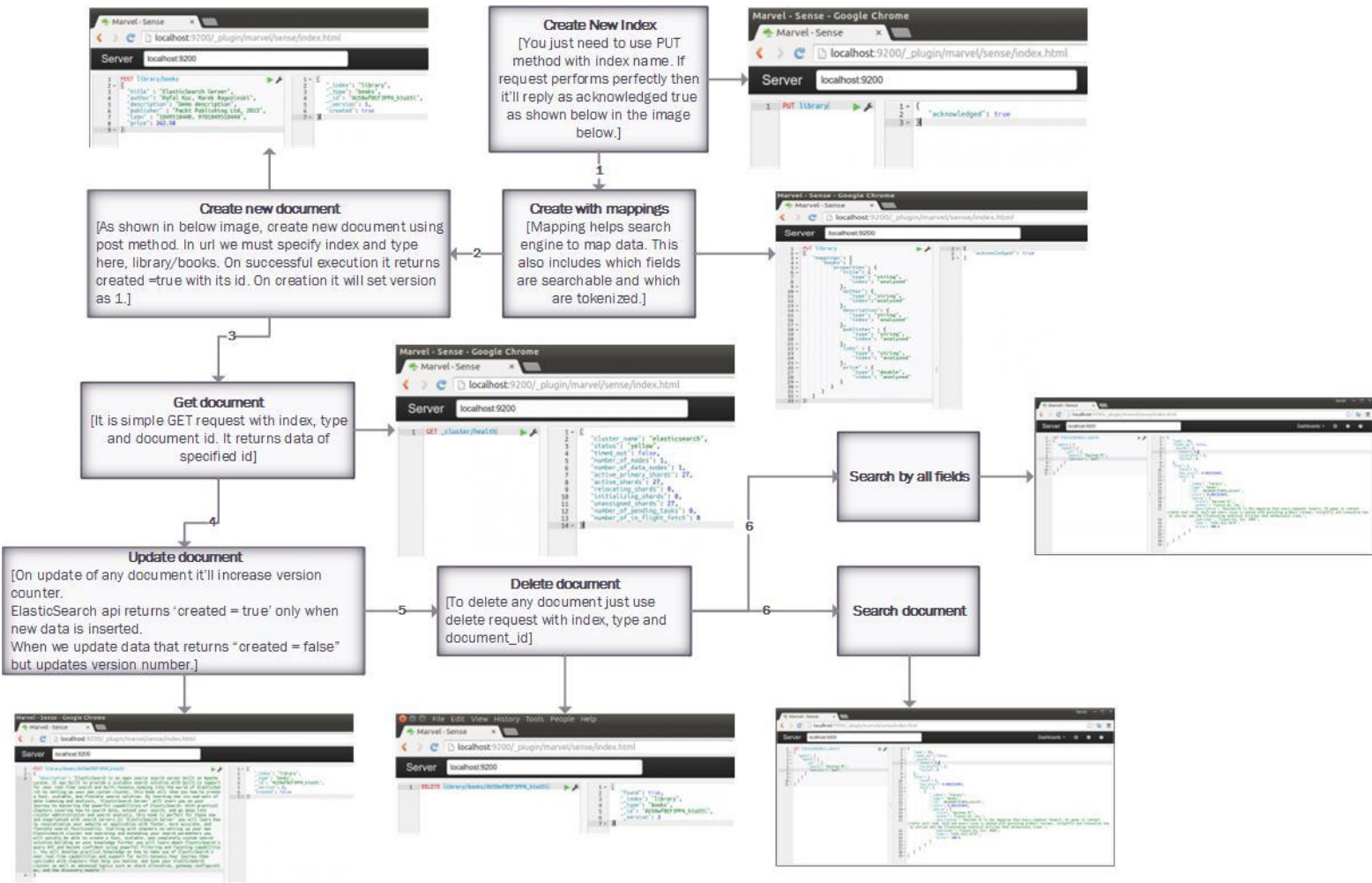
```

localhost:9200
{
  "status" : 200,
  "name" : "Lacuna",
  "cluster_name" : "elasticsearch",
  "version" : {
    "number" : "1.6.0",
    "build_hash" : "cdd3ac4dde4f69524ec6a14de3828cb95bbb86d0",
    "build_timestamp" : "2015-06-09T13:36:34Z",
    "build_snapshot" : false,
    "lucene_version" : "4.10.4"
  },
  "tagline" : "You Know, for Search"
}
    
```

**Default Page**  
Install plugin: ElasticSearch provides facility to install plugin, to make our work seamless. We will use Marvel for our testing rest apis. Using the following command we can install marvel in ElasticSearch.  
`sudo /usr/share/elasticsearch/bin/plugin -i elasticsearch/marvel/latest`  
After successful installation, we can use marvel by using this url:[http://localhost:9200/\\_plugin/marvel](http://localhost:9200/_plugin/marvel)  
The default page looks like this.



# NOW, WE'LL GO THROUGH BASIC EXAMPLE OF BOOK LIBRARY



## HOW TO INTEGRATE WITH PHP?

By using curl, you can use ElasticSearch with your favorite programming language. Here is the example of simple curl request with ElasticSearch

```

savan@savan:~$ curl http://localhost:9200/_cluster/health?pretty
{
  "cluster_name" : "elasticsearch",
  "status" : "yellow",
  "timed_out" : false,
  "number_of_nodes" : 1,
  "number_of_data_nodes" : 1,
  "active_primary_shards" : 40,
  "active_shards" : 40,
  "relocating_shards" : 0,
  "initializing_shards" : 0,
  "unassigned_shards" : 40,
  "number_of_pending_tasks" : 0,
  "number_of_in_flight_fetch" : 0
}
savan@savan:~$
    
```

**ElasticSearch Clients:**  
ElasticSearch provides clients for Java, Javascript, Groovy, .NET, PHP, Perl, Python, Ruby.

**PHP Sample Script:**  
You can find PHP client api on github:<https://github.com/elasticsearch/elasticsearch-php>

```

1 <?php
2 require './vendor/autoload.php';
3 $client = new ElasticsearchClient();
4 $info = $client->info();
5 print_r($info);//output
6 Array
7 [status] => 200
8 [name] => Steve Rogers
9 [cluster_name] => elasticsearch
10 [version] => Array (
11 [number] => 1.6.0
12 [build_hash] => cdd3ac4dde4f69524ec0a14de3828cb95bbb86d0
13 [build_timestamp] => 2015-06-09T13:36:34Z
14 [build_snapshot] =>
15 [lucene_version] => 4.10.4
16 )
17 [tagline] => You Know, for Search
18 )
    
```

## Use Case

Search	Elastic Search	MySQL search
Time:	0.49003911018372	2.23907995224
Result:	Count: 6342	Count: 6341
SearchString	Jast	Jast
Result:	2770 - Aidan - Jast 6490 - Lorenz - Jast 9236 - Ari - Jast 8533 - Micaela - Jast 15861 - Mikayla - Jast 13450 - Susan - Jast	30 - Elmira - Jast 204 - Dave - Jast 923 - Emmalee - Jast 1212 - Dallas - Jast 1216 - Aliza - Jast 1399 - Rory - Jast

**Autosuggest functionality, ElasticSearch v/s MySQL.**

By using this we want to check performance of both systems. Both are having 30 Lacs records. To improve ElasticSearch performance we have used filter, analyzer and to improve MySQL performance we have used full text search with optimized query. And at the end, output was quite amazing. Speed of ElasticSearch was half of speed of MySQL

# Management Story



A group of employees was working in a software company. It was a team of 30 employees. This was a young, energetic and dynamic team with keen enthusiasm and desire to learn and grow. The management decided to teach the employees about finding real solution to the problems. The team was called to play a game in a banquet hall. The group was quite surprised as they were called for playing game. All reached the venue holding various thoughts. As they entered the hall, they found the hall decorated beautifully with colorful decorative papers and balloons all over the place. It was more like a kid's play area, than a corporate meeting hall.

Everyone was surprised and looked at each other. Also, there was a huge box of balloons placed at the center of the hall. The team leader asked everyone to pick a balloon from the box and asked them to blow it. Every one happily picked a balloon and blew it. Then the team leader asked them to write their names on their balloon, carefully so that the balloons didn't blow up. All tried to write their names on the balloons, but not everyone was successful. A few balloons blew up due to pressure and they were given another chance to use another balloon. Those who failed to mark their names even after the second chance were ruled out of the game. After the second chance, 25 employees were qualified for the next level. All the balloons were collected and then put into a room.

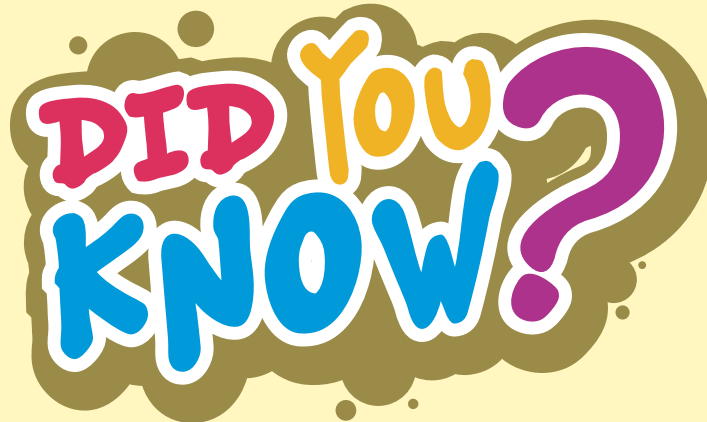
The team leader announced the employees to go to the room and pick the same balloon that had his name on it. Also, he told them that no balloon should blow up and warned them to be very careful! All 25 employees reached the room, where the balloons carrying their names were thrown here and there. The time limit was just 15 minutes for this exercise. They were searching for the respective balloons carrying their names. While they were in a rush to find the respective balloons, they tried not to burst the balloons. It was almost 15 minutes and no one was able to find the balloon carrying his own name. The team was told that the second level of the game was over. Now it is the third and final level. They asked the employees to pick any balloon in the room and give it to the person named on the balloon. Within a couple of minutes all balloons reached the hands of the respective employee and everyone reached the hall. The team leader announced; this is called team work & real solutions to the problems. Everyone is frantically hunting for solutions to the problems without understanding the ideal ways.

## **Moral:**

Many times, sharing and helping others give you real solutions to all problems. Help out each other to ease things.

- Contributed by

**Sanskriti Purohit**



01. Venus is the only planet in the solar system that rotates clockwise, whereas all other planets rotate anti-clock wise.
02. In space, astronauts cannot cry because there is no gravity and tears can't flow.
03. Kangaroos cannot walk backwards!
04. 80 percent of vanilla flavored food (including the ice cream and essence) is made artificially, because natural vanilla beans are very expensive.
05. Rabbits and parrots can see what is behind them without turning their heads.
06. Australia is the only continent in the world that has no volcanoes.
07. Hands and feet have more than half of the bones in the human body.
08. A bear has 42 teeth
09. Just like humans fingerprints, Dogs nose prints are unique, and it can be used to identify the identity of dogs.
10. You cannot talk and inhale or vice versa. When you speak, you will not be able to inhale. Give it a try?

# MOHO OVERVIEW:

“MOHO”- Mera Office Hamara Office as the name suggests was initiated to have a “We” feeling in the office. Through this programme Management expected to have an active participation of all CR2 family members in each area. Member’s contribution to help maintain their personal work area and general office areas (kitchen, supplies room, etc.) will ensure an attractive and safe work environment.

As said, the main purpose of this program is to maintain a healthy environment in our office and to create we-feelings amongst employees and organization for achieving the common vision of the organization.

## MOHO VOLUNTEERS



**June-July' 2016**

**Rajan Mrug & Heena Sananse**

Initiated activity of giving “Title” to each member.  
Facilitating dustbins in each rows / cubicals.

**July-Aug' 2016**

**Mayank Gaur & Sarfaraj Dal**

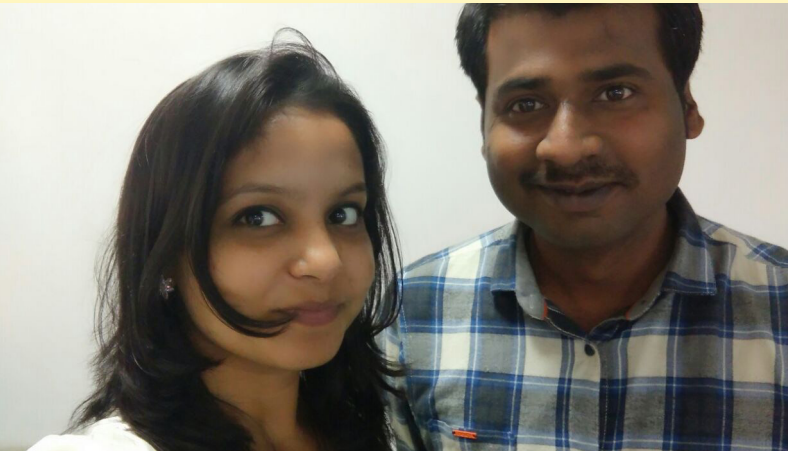
Initiated activity of naming the chambers i.e. C1, C2,  
Pantry and Entrance door. Facilitating stools for  
discussion with any members instead of using chairs.



**Aug-Sep' 2016**

**Divya Singh & Ashish Srivastava**

We introduced checking of temporary files and  
also recycle bin.



**Sep-Oct' 2016**

**Shaili Zaveri & Bhavesh Raval**

Glass cleaning of the entrance door and other cabins  
Taken a hand on Garbage Management



HAPPY  
MOMENTS



Birthd<sup>ay</sup> Bash:  
June 2016  
Nirav  
Chhatrapal  
Gignesh



Birthd<sup>ay</sup> Bash:  
July '16  
Nitesh  
Vijay  
Bhavesh



BIRTHD<sup>AY</sup> BASH:  
AUG '16  
KARNA  
AMMAR  
DEEPAL



Birthd<sup>ay</sup> Bash:  
Sep '16  
Mehul  
Jesha  
Imran



# Work Anniversary



***Congratulations!***  
***Thank you for being a part of***  
***CR2 family***





# Cluster of New Joinee



SOHAM



PARTH



BHAVESH



ASHISH



YAGNESH



HEMANT



SAGAR



SHAILI



## DAYS CELEBRATION Guru Purnima







MIS-MATCH DAY



BEST DRESSED



TREE PLANTATION DAY



JANMASHTMI CELEBRATION



# Updates @ CR2

We have initiated Talent Development Program @ CR2 to avail the candidates for exploring their knowledge in either Technology or Domain of their choice.

Under this program, we have selected four members for

**"1st season of Talent Development Program 2016-17".**



**Nirav Prabhani**  
Technology - Android



**Mayank Gaur**  
Technology  
Cortana and Android



**Rajan Mrug**  
Domain – BDM



**Deepal Mehta**  
Domain  
ISO and CMMI

## Learning Session & Feedback



**NHS**  
National Health Service  
& it's Implementation  
- Mr. Harbans Singh Siddhu

### Feedback

It's been good presentation for the Technical inputs from Harbans Sir for NHS API; it's been helpful for future enhancement.

- Ms. Heena Sananse  
(TL S/W team)



**Written Communication & Email Etiquettes**  
- Ms. Sanskruti Purohit

### Feedback

It's been good content of the presentation, which educate person for written communication and email etiquettes & awareness for what needs to be considered while drafting any content. Also to learn how to avoid errors of any communication.

- Mr. Mayank Gaur (Software developer)



**Body Language & Gestures**  
- Deepal Mehta

### Feedback

Very nice presentation, fulfilling the objective of recognizing common mistakes of body language. Also got to know how to interpret and react with others through gestures. This knowledge will be helpful to change personality and create impact on others.

- Mr. Bhavesh Dhaduk  
(TL Mobile team)



# my VOICE



## Bhavesh Dhaduk (TL- IOS) :

-1year & 3 months & 15 days or 15 months & 15 days or 67 weeks & 4 days or 473 days or 11,352 hours or 681,120 minutes or 40,867,200 seconds  
- Really great co-workers, working together as a team to accomplish the goals set forth. Everyone wears multiple hats which allow individual growth and experience across a broad range of subject matter. Good work environment, HR is very helpful, Company works on really good projects, good pay...

## Sarvang Shah : (Digital Marketing Manager)

"CR2 Technologies Limited is 4th company of my career. Before one year it was a big challenge for me to work under a roof with new environment and new people, but thanks to all of my colleagues and respected seniors who encouraged and supported me on each stage of work.

I enjoy my job with this company and also would like to say that CR2 Technologies Limited is the best platform for Experienced / Freshers to achieve vision which makes dreams true.

I am proud and satisfied to complete 1st year of professional life."

## Chhatrapal Singh Parmar: (Sr. Developer – Mobile Team)

I am feeling very grateful to complete 1 year in our CR2 family. In this company, I got best colleagues and supporting people who always encouraged me for better performance. I improved a lot myself within this organization and feeling very happy to be a part of CR2 family. Thank you Sohaon sir, Suyash sir, Deepal ma'm, Bhavesh sir and Sanskruti ma'm for giving a great opportunity.

## Mayank Gaur: (Software Developer)

'Office is our first home and people worked over here are our first family'. The day when I had a work anniversary, I didn't know that I have completed my 1 year in CR2, when people came to me and wished me for my one year completion at that moment I realized about the same. Here "Working" is not simply a "WORK", it's 'Work' with LEARNING including fun and joy. In CR2, we never say "I" worked on, we always say "WE". Best part about CR2 is that we worked in an environment of family where we support each other, build each other but never ever let fall others. CR2 is not just a company where people worked and simply go at evening; we celebrate our work like an occasion of festival.

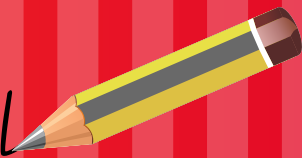
# Personal Spotlight

## Newly Engaged



Mr. Rajan Mrug  
got engaged with  
Ms. Tulsi  
on 17th July'2016

## First step to SCHOOL



Hiya  
Dhaduk

Daughter of Mr. Bhavesh Dhaduk  
started her school this year.



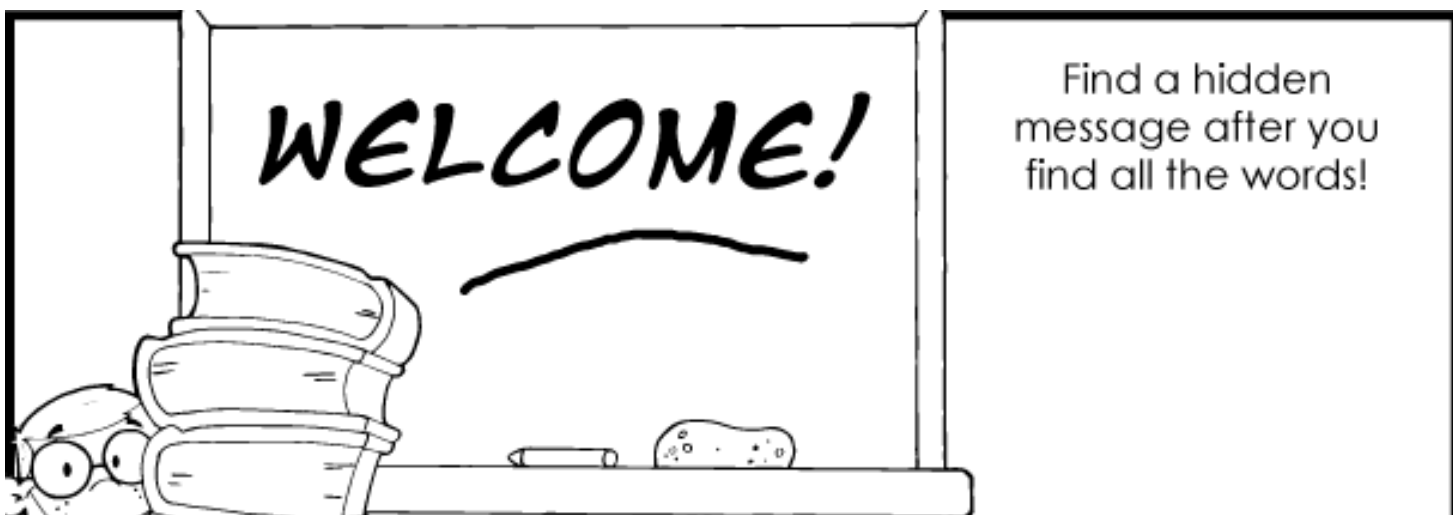
Naavya  
Mehta

Daughter of Ms. Deepal Mehta  
started her school this year.

# Entertainment Zone

Welcome to back to school puzzle.

Go back to your school time and find the relevant words.



Find a hidden message after you find all the words!

EWELCP OHLIBRARYME  
BDACEKOTOSCEHOOLM  
XWUNGMLETQJAMDHSD  
HICCEXSLVYZDNBFSY  
BINRAGGQMPZINARWR  
LHOWLTYTRNCNKZKRK  
YOURYWIOAHUGDNDLT  
MZDTLP SOCBNOHCKCK  
YMJLHFCLNLEWWCCLX  
BDODZYZVFGACCHJKX  
JCP RPFHNFDRSNLTVM  
KCAPK CABCTYESEADX  
SCHOOLZTPVNIHRIPB  
RRIQVYPDQNC EOCOCN  
NHNHQBEVNFQHXVAOS  
SJYNUUUEJBLNNZUEM  
LCKGGSMINOTEBOOKT

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Winners of the quiz will be announced in next issue.



## TIP OF THE MONTH

- Continue drinking plenty of water in this season as it is important to keep your body hydrated every time.
- Avoid eating outside food specially Pakodas, Bhel, Panipuri, Vadapav, etc. Eating such foods increases the chances of contamination and illness during the monsoon.
- Use a powerful insect repellent to hold mosquitoes away and prevent getting bitten. It's furthermore good concept to take anti-malarial drug during this monsoon.
- Where likely, try to avoid walking through rainy water. It can lead to numerous fungal diseases of the feet and heels.
- Use Herbs & Spices regularly. Herbs help in improving immunity during rainy season. Herbs such as Tulsi, Lemongrass, Mint, Ginger, Turmeric, and Garlic can be used in monsoon on daily basis.



Editorial Team

Ms. Sanskruti Purohit | Ms. Deepal Mehta | Mr. Sarfaraj Dal

*Compiled & Designed by  
Sarfaraj Dal*

