Report on ARTS & CULTURAL CLUB

Purpose: To provide a platform that enables the students to explore their hidden talents.
Event: Painting
Under Arts and Cultural club, events painting event was organized on 7th October 2015 from 11am -12:30pm.
Students been informed 2 days before regarding the event.
Participants were informed to bring necessary equipment's for the event.
Event-Flow
There were around 8 participants
On the day of event, there were only 4 participants.
Who were been judged depending on their painting skills.
On 7th October 2015 event started at 11:30am and it was completed by 1:00pm.
Winners:
1. Vidya Shree .P I Sem B
2. Brundha .S III Sem B
Purpose: To create awareness among students that enforces importance of books and to provide a platform for students to exchange books.
Event-break-through:
Event consists of 2 segments
    1. Book-Fair
    2. Handi-Craft Sale Expo.
Event flow
The event was organized on 02/04/2016.
Students were eared a week before.
The event started at 10AM.
The event was inaugurated by the HOD-"Dr. V.Ilango":
The event included a book-sharing platform and also sale of handicrafts.
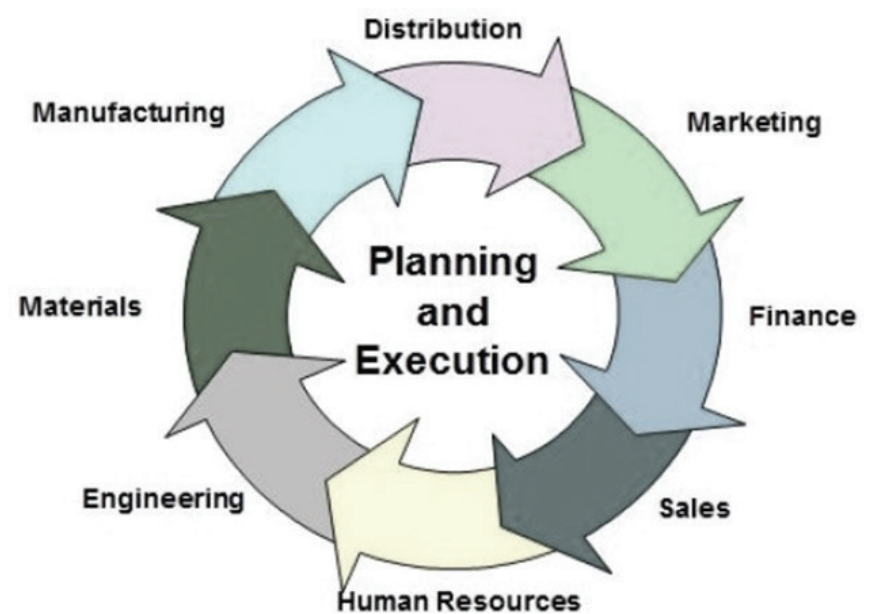A wide range of people made a visit to the event that involved staff and students.
There was an over-Whelming response from the students.
There was time limit of One hour was given to pen down their views on the topic.
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SAP - ERP Introduction

SAP is a market leader in providing ERP (Enterprise Resource and Planning) solutions and services. In this chapter, we will try to understand more on ERP and where it should be used. In addition, we will learn the implementation techniques of ERP along with the ERP packages available in the market.
What is ERP?
Enterprise Resource Planning (ERP) is a software that is built to organizations belonging to different industrial sectors, regardless of their size and strength.
The ERP package is designed to support and integrate almost every functional area of a business process such as procurement of goods and services, sale and distribution, finance, accountings, human resource, manufacturing, production planning, logistics & warehouse management.

Business Process Integration
Every business, regardless of the industry they belong to, require connected systems with efficient information flow from one business process to another. Business Process Integration (BPI) plays an important role in overcoming integrating challenges that allows organizations to connect systems internally and externally.
Business Process Integration (BPI) allows –
•   automation of business processes,
•   integration of systems and services,
•   secure sharing of data across numerous applications, and
•   automation of management, operational, and supporting process.
Dr. V. Ilango
Prof. & Head
MCA: NHCE

Report on Web Design Club

Purpose:To provide a forum that enables the student to exhibit their creative ideas in web development
Event –theme:To create web-pages on the topic "DYNAMIC INDIA,AUTOMOBILE,SMART PHONE "
Tools permitted:HTML,CSS,and any web tools.
Event flow:
The event was organized on 22/02/2016. Students were informed one week before.
 The event started at 4pm. There was time limit of One hour for creating the web pages on the given domain.
Students were given a freedom to design creatively.
Some chose the topic like automobile and some more chose the topic, based on smart phones.
Winners were decided on the grounds ofcreativity,designing and usage of technology.
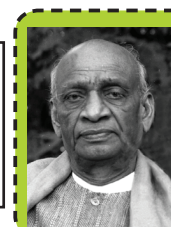**MCA: NHCE**

Open Forum
Do not look back upon what has been done. Go Ahead.
Swami Vivekananda
Mail your valuable thoughts within 200 words
to: nhbytes@gmail.com

" **Quote Hanger**
Manpower without Unity is not a strength unless it is harmonized and united properly, then it becomes a spiritual power.
Vallabhbhai Patel

machine learning and its diverse applications

Machine Learning (ML) is a core, transformative way by which we're rethinking everything we're doing. Machine Learning techniques and its applications are in usage across all our daily practice, be it search, ads, YouTube or Play. Most industries working with large amounts of data have recognized the importance of machine learning technology. By gathering insights from these data, organizations are able to work more efficiently or gain an advantage over competitors. Innovative predictive models have been applied successfully with machine learning algorithms, tools and techniques in several domains. Information Technology is contributing in significant ways to enhance health care delivery and to improve the quality of human life. Medical or Health Informatics scientific field deals with storage, retrieval and optimal use of medical information, data and knowledge for problem solving and decision making. Technology in Health has an immense development over the years in information gathering, treatments, communications and research. Health Care informatics, a multi-disciplinary field has become synonymous with the technological advancements and data handling challenges by applying machine learning techniques

MACHINE LEARNING

Machine Learning: the classic definition is "A computer program is said to learn from experience E with respect to some class of tasks T and performance measure P, if its performance at tasks in T, as measured by P, improves with experience E". Machine learning is a branch of artificial intelligence employs a variety of statistical, probabilistic and optimization techniques that allows computers to "learn" from past examples and to detect hard-to-discern patterns from large, noisy or complex data sets . Using algorithms that iteratively learn from data, machine learning allows computers to find hidden insights without being explicitly programmed where to look. Machine Learning's Strategic Role in Predictions Enterprises is striving to find greater meaning in the substantial amounts of data they generate and save every day.

Machine learning is providing the essential algorithms, applications, and frameworks to bring greater predictive accuracy and value to enterprises' data sets and contributing to diverse strategies succeeding. Machine learning techniques are designed to seek out opportunity to optimize decisions based on the predictive value of large-scale data sets. Machine learning is proving to be effective at handling predictive tasks including defining which behaviors have the highest tendency to drive preferred outcomes.

APPLICATIONS OF MACHINE LEARNING

Machine learning played great role in recent years as significant development happened in various fields using it. ML lets machines make decision from enormous data. Companies such as Google, Amazon, Accenture, Toyota, Hitachi, Tesla, Johnson & Johnson have embraced machine learning at massive scale and improved their products & services. Start-up companies also developed innovative applications using machine learning. Amazon launched machine learning platform in 2015 and showed more helpful reviews to customers, Google used the ML to translate text in 27 languages. Tesla adopted ML in Auto pilot technology. Machine learning is being used in a wide range of application domains and few foretastes are listed here. Financial services Banks and other businesses in the financial industry use machine learning technology for two key purposes: to identify important insights in data, and prevent fraud. The insights can identify investment opportunities, or help investors know when to trade. A team of researchers in the Machine Learning Technologies group at IBM Research - Haifa are taking fraud prevention and detection to a new level with the IBM Detecting Fraud in Financial Transactions solution. Rather than singling out specific types of transactions, the suggested solution analyzes historical transaction data to build a model that can detect fraudulent patterns. This model is then used to process and analyze a large amount of financial transactions as they happen in real time, also known as stream computing . Government Government agencies such as public safety and utilities have a particular need for machine learning since they have multiple sources of data that can be mined for insights. Machine learning can also help detect fraud and minimize identity theft. In U.K The Government Digital Service (GDS) has been experimenting with different applications such as predicting page views to do anomaly detection and so far is focusing on demonstrating the capabilities of machine learning algorithms on a number of products and prototype services. Health Care Machine learning is a fast-growing trend in the health care industry.

The technology can also help medical experts analyze data to identify risks that may lead to improved diagnoses and treatment. IBM research group "The Machine Learning for Healthcare and Life Sciences" is developing and applying machine learning and data mining tools to an array of different challenging problems from clinical genomic analysis, through designing clinical decision support systems, to analyzing real world evidence for personalized medicine. Machine learning to analyze our buying history – and promote other items the person would be interested in. This ability to capture data, analyze it and use it to personalize a shopping experience is the future of retail. Microsoft's new cloud based predictive analytics tool called Azure Machine Learning for sales forecasting is in progression and vibrant in this province.

Transportation analyzing data to identify patterns and trends is a key to the transportation industry, which relies on making routes more efficient and predicting potential problems to increase profitability. Traffic has been growing in major cities around the world given the increase in densities of cars on roads and the slow development of road infrastructure. Research scientist and developer teams at Microsoft Research pioneered the use of machine learning methods to build predictive models for traffic. The work led early on to prototypes that can infer and predict the flow of traffic at different times into the future based on the analysis of large amounts of data on traffic over months and years. The work was leveraged in revolutionary services, such as traffic maps that show users how traffic is evolving over time, as well as in services that provide traffic-sensitive directions by considering the inferred speeds on roads that are not sensed directly

Mrs.B.Nithya
Ass.Professor ,MCA-NHCE

Dr APJ Abdul Kalam Quotes

1 My message, especially to young people is to have courage to think differently, courage to invent, to travel the unexplored path, courage to discover the impossible and to conquer the problems and succeed. These are great qualities that they must work towards. This is my message to the young people.

2 Educationists should build the capacities of the spirit of inquiry, creativity, entrepreneurial and moral leadership among students and become their role model.

3 Tell me, why is the media here so negative? Why are we in India so embarrassed to recognise our own strengths, our achievements? We are such a great nation. We have so many amazing success stories but we refuse to acknowledge them. Why?

4 Life is a difficult game. You can win it only by retaining your birthright to be a person.

5 My hair grows and grows; you cannot stop it - that fellow grows, it grows wild.

6 Don't read success stories, you will get only message...
Read failure stories, you will get some ideas to get success...

7 To succeed in your mission, you must have single-minded devotion to your goal....

8 Don't take rest after your first victory, because if you fail in second, more lips are waiting to say, that your first victory was just luck

9 It is easy to defeat someone, but it is very hard to win someone.

10 You cannot change your future, but, you can change your habits, and surely your habits will change your future.

Selenium Testing tool

The benefits of implementing automation test are many;

- Supports execution of repeated test cases
- Aids in testing a large test matrix
- Enables parallel execution
- Encourages unattended execution
- Improves accuracy thereby reducing human generated errors
- Saves time and money

Automation testing benefits are many and well understood and largely talked about in the software test industry. One of the most commonly asked question comes with this is –

- What is the best tool for me to get my tests automated?
- Is there a cost involved?
- Is it easy to adapt?

One of the best answers to all the above questions for automating web based applications is Selenium. Because:

- It's open source
- have a large user base and helping communities
- have multi browser and platform compatibility
- has active repository developments
- supports multiple language implementations

Gopi Krishna
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Hadoop : Overview

Hadoop History

Hadoop is an open-source software framework for storing data and running applications on clusters of commodity hardware. It provides massive storage for any kind of data, enormous processing power and the ability to handle virtually limitless concurrent tasks or jobs.

As the World Wide Web grew in the late 1900s and early 2000s, search engines and indexes were created to help locate relevant information amid the text-based content. In the early years, search results were returned by humans. But as the web grew from dozens to millions of pages, automation was needed. Web crawlers were created, many as university-led research projects, and search engine start-ups took off (Yahoo, AltaVista, etc.).

One such project was an open-source web search engine called Nutch – the brainchild of Doug Cutting and Mike Cafarella. They wanted to return web search results faster by distributing data and calculations across different computers so multiple tasks could be accomplished simultaneously. During this time, another search engine project called Google was in progress. It was based on the same concept – storing and processing data in a distributed, automated way so that relevant web search results could be returned faster.

Why Hadoop is important?

In 2006, Cutting joined Yahoo and took with him the Nutch project as well as ideas based on Google's early work with automating distributed data storage and processing. The Nutch project was divided – the web crawler portion remained as Nutch and the distributed computing and processing portion became Hadoop (named after Cutting's son's toy elephant). In 2008, Yahoo released Hadoop as an open-source project. Today, Hadoop's framework and ecosystem of technologies are managed and maintained by the non-profit Apache Software Foundation (ASF), a global community of software developers and contributors

• Ability to store and process huge amounts of any kind of data, quickly. With data volumes and varieties constantly increasing, especially from social media and the Internet of Things (IoT), that's a key consideration.

• Computing power. Hadoop's distributed computing model processes big data fast. The more computing nodes you use, the more processing power you have.

• Fault tolerance. Data and application processing are protected against hardware failure. If a node goes down, jobs are automatically redirected to other nodes to make sure the distributed computing does not fail. Multiple copies of all data are stored automatically.

• Flexibility. Unlike traditional relational databases, you don't have to preprocess data before storing it. You can store as much data as you want and decide how to use it later. That includes unstructured data like text, images and videos.

• Low cost. The open-source framework is free and uses commodity hardware to store large quantities of data.

• Scalability. You can easily grow your system to handle more data simply by adding nodes. Little administration is required.

What are the challenges of using Hadoop ?

MapReduce programming is not a good match for all problems. It's good for simple information requests and problems that can be divided into independent units, but it's not efficient for iterative and interactive analytic tasks. MapReduce is file-intensive. Because the nodes don't intercommunicate except through sorts and shuffles, iterative algorithms require multiple map-shuffle/sort-reduce phases to complete. This creates multiple files between MapReduce phases and is inefficient for advanced analytic computing.

There's a widely acknowledged talent gap. It can be difficult to find entry-level programmers who have sufficient Java skills to be productive with MapReduce. That's one reason distribution providers are racing to put relational (SQL) technology on top of Hadoop. It is much easier to find programmers with SQL skills than MapReduce skills. And, Hadoop administration seems part art and part science, requiring low-level knowledge of operating systems, hardware and Hadoop kernel settings.

Data security. Another challenge centers around the fragmented data security issues, though new tools and technologies are surfacing. The Kerberos authentication protocol is a great step toward making Hadoop environments secure.

Full-fledged data management and governance. Hadoop does not have easy-to-use, full-feature tools for data management, data cleansing, governance and metadata. Especially lacking are tools for data quality and standardization.

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Quantitative Aptitude #6

1. If one-third of one-fourth of a number is 15, then three-tenth of that number is:
A. 35
B. 36
C. 45
D. 54

2. Three times the first of three consecutive odd integers is 3 more than twice the third. The third integer is:
A. 9
B. 11
C. 13
D. 15

3. The difference between a two-digit number and the number obtained by interchanging the positions of its digits is 36. What is the difference between the two digits of that number?
A. 3
B. 4
C. 9
D. Cannot be determined
E. None of these

4. The difference between a two-digit number and the number obtained by interchanging the digits is 36. What is the difference between the sum and the difference of the digits of the number if the ratio between the digits of the number is 1 : 2 ?
A. 4
B. 8
C. 16
D. None of these

5. A two-digit number is such that the product of the digits is 8. When 18 is added to the number, then the digits are reversed. The number is:
A. 18
B. 24
C. 42
D. 81

6. The sum of the digits of a two-digit number is 15 and the difference between the digits is 3. What is the two-digit number?
A. 69
B. 78
C. 96
D. Cannot be determined
E. None of these

7. The sum of the squares of three numbers is 138, while the sum of their products taken two at a time is 131. Their sum is:
A. 20
B. 30
C. 40
D. None of these

8. A number consists of two digits. If the digits interchange places and the new number is added to the original number, then the resulting number will be divisible by:
A. 3
B. 5
C. 9
D. 11

9. In a two-digit, if it is known that its unit's digit exceeds its ten's digit by 2 and that the product of the given number and the sum of its digits is equal to 144, then the number is:
A. 24
B. 26
C. 42
D. 46

10. Find a positive number which when increased by 17 is equal to 60 times the reciprocal of the number.
A. 3
B. 10
C. 17
D. 20

Solution for Puzzles 1: D , 2: D, 3: B, 4: B , 5, B, 6: D, 7: A, 8: D, 9: A, 10: A

Dr.R.Chinnaiyan, Professor /MCA-NHCE

Amazon EC2

What Is Amazon EC2?

Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) cloud. Using Amazon EC2 eliminates your need to invest in hardware up front, so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.

Features of Amazon EC2

Amazon EC2 provides the following features:

• Virtual computing environments, known as instances

• Preconfigured templates for your instances, known as Amazon Machine Images (AMIs), that package the bits you need for your server (including the operating system and additional software)

• Various configurations of CPU, memory, storage, and networking capacity for your instances, known as instance types

• Secure login information for your instances using key pairs (AWS stores the public key, and you store the private key in a secure place)

• Storage volumes for temporary data that's deleted when you stop or terminate your instance, known as instance store volumes

• Persistent storage volumes for your data using Amazon Elastic Block Store (Amazon EBS), known as Amazon EBS volumes

• Multiple physical locations for your resources, such as instances and Amazon EBS volumes, known as regions and Availability Zones

• A firewall that enables you to specify the protocols, ports, and source IP ranges that can reach your instances using security groups

• Static IP addresses for dynamic cloud computing, known as Elastic IP addresses

• Metadata, known as tags, that you can create and assign to your Amazon EC2 resources

• Virtual networks you can create that are logically isolated from the rest of the AWS cloud, and that you can optionally connect to your own network, known as virtual private clouds (VPCs)

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Important days in JUNE 2016

June 17	World Day to Combat Desertification
June 20	World Refugee Day
June 21	International Day of Yoga
June 23	United Nations Public Service Day
June 26	International Day Against Drug Abuse and Illicit Trafficking
June 29	National Statistics Day

Important days in JUNE 2016

June 1	World Milk Day (FAO)
June 5	World Environment Day
June 8	World Oceans Day
June 12	World Day Against Child Labour Child Labour Prohibition Day
June 14	World Blood Donor Day
June 15	World Elder Abuse Awareness Day

ERP - Evolution & Functional Areas

Evolution of ERP

During early phases of development, integrated solutions were designed for particular process areas such as –

• Material Management – the integrated system was known as Material Requirement Planning (MRP)

• Manufacturing – the integrated system was known as Manufacturing Resource Planning

However none of the integrated systems came with a complete solution for an organization covering major business process areas. In early 1990's, the Gartner Group first used the acronym ERP. By mid–1990's, ERP systems addressed all the core enterprise functions.

In the early stages, most of the ERP solutions were focused on automatingback office functions that were not directly affecting customers or general public. Later, front office functions such as customer relationship management and e–business systems were integrated.

Functions of ERP

An ERP system typically performs the following functions –

• Supports the integrated business process inside the organization.

• Improves capital planning and helps in executing organizational plans and strategies.

• Helps speed up the decision-making process over the analysis of accurate data.

• Helps extend the business network to wider domains, expanding the products and services to reach more customers, suppliers, and partners.

• Identifies operational risks to improve governance.

• Provides protection against organizational data breaches and security threats to leakage of information.

• Makes the organization adaptable to the rapid changes in the business process according to the needs.

• Gives long-term profit by providing means to increase the customer base.

Functional Areas

ERP is a business management software is usually a suite of integrated applications that a company can use to collect, store, manage, and interpret data from many functional areas including –

• Financial Accounting – Deals with financial transactions and data.

• Human Resource – Deals with information related to employee of an organization.

• Customer Relationship Management – Deals with capturing and managing customer's relationship, facilitating the use of customer experience to evaluate the knowledge database.

• Sales and Distribution – Deals with order placement, delivery, shipment and invoicing.

• Logistics and Warehouse Management – Deals with storage of products and shipment.

• Manufacturing and Material Management – Deals with the production and production planning activities.

• Supply Change Management – Deals with the movement of products, storing, managing, and controlling supplies.

• Business Intelligence – Analyzes data and converts the same to information.

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Behind the Scene

'New Horizon Bytes' is for you and by you. Write-ups, photographs, illustrations and feedback are welcome from students and faculty of NHC-K, NHPUC, NHC-M, NHCE and NH B.Ed. Please make them brief (maximum 300 words) and e-mail to nhbytes@gmail.com