

BGIET

NEWSLETTER

DEPARTMENT OF CSE

VISION

To be a center of excellence in technical education, research and support services to produce comprehensively trained, innovative Computer Science Engineers of highest quality to contribute to the Nation's

MISSION

M1. Create an environment of skill learning through faculty training, online learning, sound academic practices and research endeavors

M2. Provide opportunities to promote organizational and leadership skills in students through various extra-curricular and co-curricular events



M3. To uplift innovative research in Computer Science and Engineering to serve the needs of industry, Government and society.

M4. Providing social awareness and responsibility in students to serve the Nation and to protect environment.

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FROM THE HOD'S DESK



Congratulations to the team for the upcoming edition of CSE Messenger! It is your hard work & dedication that this newsletter is holding the pride of the department & is raising the standards of excellence.

Dr. Arun Kumar Singh

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FROM THE EDITOR'S DESK



The content in this newsletter is in perfect blend of quality. It is an incredible platform for real technical, managerial & social insight. hence, in a perfect tune to convert a raw student into successful one.

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FROM THE STUDENT EDITOR'S

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Online SEMINAR ON Security enhancement by e-authentication system



This project focuses on building an e-Authentication system using a combination of QR code and OTP for enhanced security. The e-Authentication system is designed to avoid hacking of accounts through shoulder surfing and misuse of login credentials. To be able to use the system, a user has to first register in the system by entering the basic registration details (name, address, zip code, etc.).

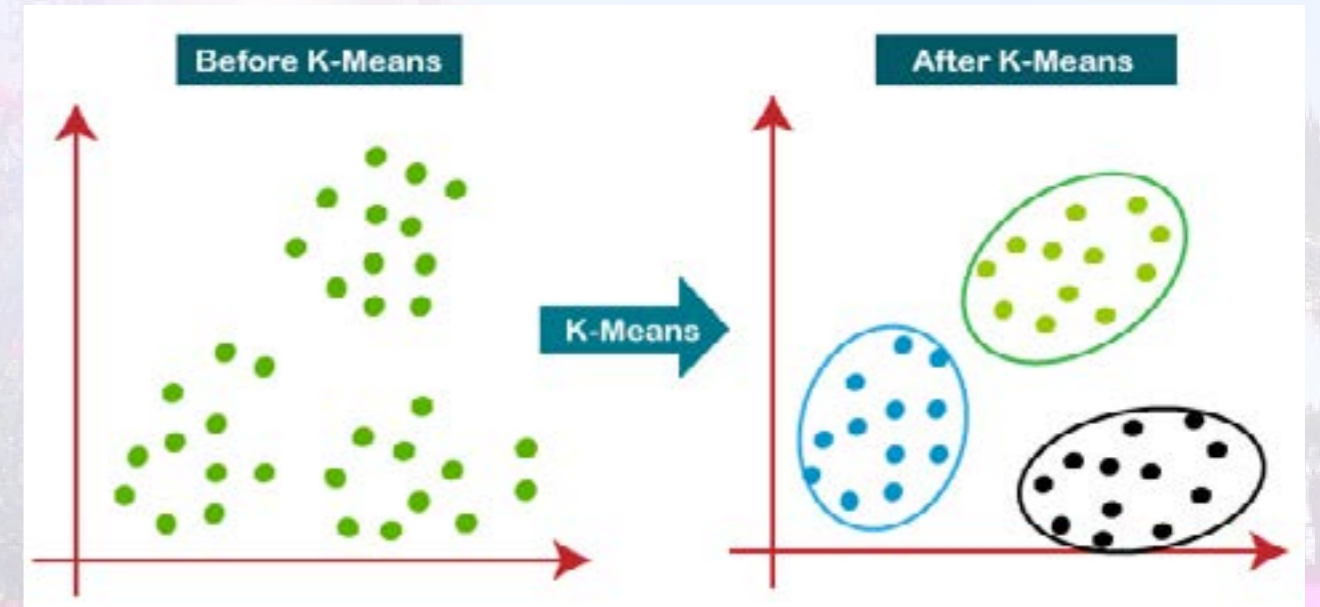
Once the registration is complete, the user can access the login module to authenticate the account by entering the email id and password combination they used during registration. Then, the user can proceed to the next authentication step using either of the two options – QR (Quick Response) code or OTP (One Time Password). As per the option selected by the user, the system will generate a QR Code or an OTP. While the QR code will be sent to the user's mail id, the OTP will be sent via SMS to the registered mobile number of the user.

The system randomly generates the QR Code and OTP at the time of login. It makes the login more secure. However, to use this system, one always needs an active Internet connection.

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Online WORKSHOP ON K-means data mining algorithm



This is one of the interesting computer science project ideas to create. As the name suggests, this Computer Science project involves building a prediction system that can analyze and predict the crime rate of a particular location. Naturally, the system needs to be fed with relevant data. It uses the K-means data mining algorithm to predict the crime rate. The K-means algorithm can cluster co-offenders and organized crime groups by detecting relevant crime patterns via hidden links, link prediction, and statistical analysis of crime data.

It functions somewhat like this – the admin will feed the crime data into the system. The algorithm will analyze crime data stored in a database and extract information and patterns from it. It will then collate the crime groups based on the patterns found in the dataset. The clusters will be made based on factors like where the crime took place, which people were involved in the crime, and when the crime occurred

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Lab Session on Computer-assisted education(Online)

The use of computers and software to assist education and/or training, computer assisted education brings many benefits and has many uses. For students with learning disabilities, for instance, it can provide personalized instruction and enable students to learn at their own pace, freeing the teacher to devote more time to each individual. The field is still growing but promising, with many educators praising its ability to allow students to engage in active, independent and play-based learning. Types of CAL



- Tutorials

Tutorial software provides information about diverse topics, essentially taking on the role of the instructor. In many cases, the technology quizzes and evaluates the student's comprehension of the subject matter using an interactive process and delivering feedback.

- Practice

Practice technology applies a digital approach to traditional methods of learning content, such as flashcards. The technology, for example, might quiz learners on different concepts.

- Demonstrations

Demonstrations tap into different senses, like visual and auditory, to present facts, information, concepts, and more. In some cases, students can become "immersed" in the experience, as is often the case with virtual or augmented reality technologies, both of which are used in teaching and learning.

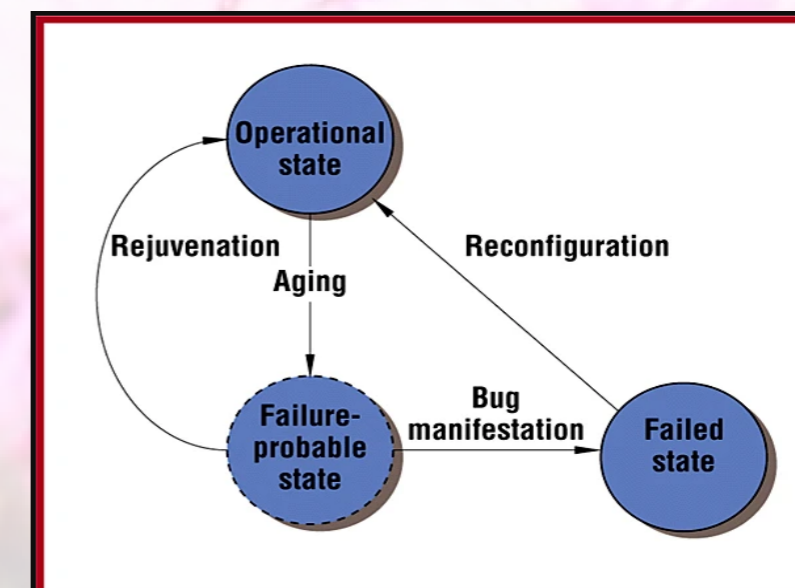
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Online Technical talk on Software Rejuvenation (10/09/2020)

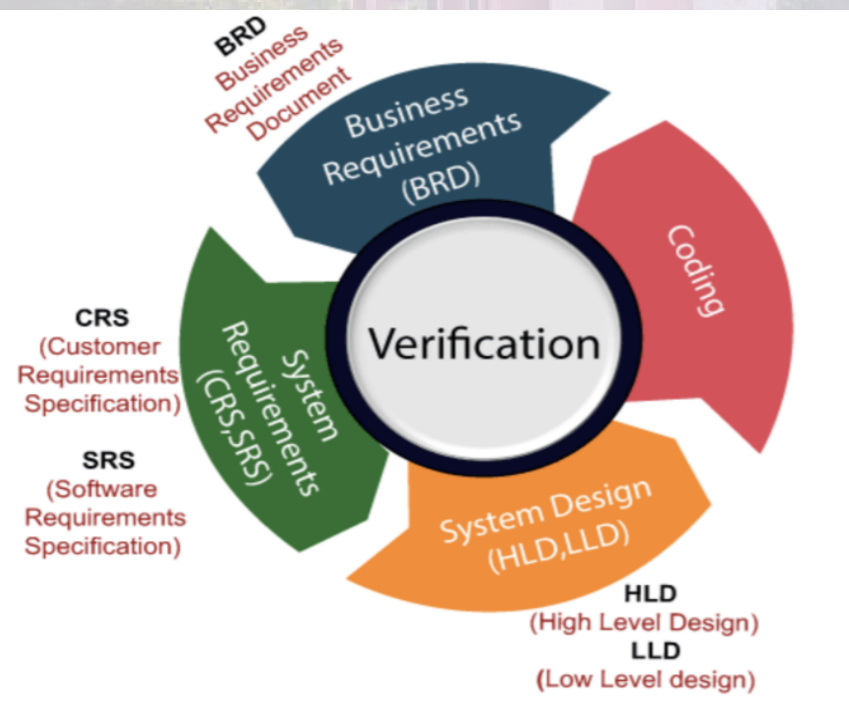
By: Dr. Anju (Associate Professor)

Software rejuvenation is the concept of gracefully terminating an application and immediately restarting it at a clean internal state. In a client-server type of application where the server is intended to run perpetually for providing a service to its clients, rejuvenating the server process periodically during the most idle time of the server increases the availability of that service. In a long-running computation-intensive application, rejuvenating the application periodically and restarting it at a previous checkpoint increases the likelihood of successfully completing the application execution. We present a model for analyzing software rejuvenation in such continuously-running applications and express downtime and costs due to downtime during rejuvenation in terms of the parameters in that model. Threshold conditions for rejuvenation to be beneficial are also derived. We implemented a reusable module to perform software rejuvenation. That module can be embedded in any existing application on a UNIX platform with minimal effort. Experiences with software rejuvenation in a billing data collection subsystem of a telecommunications operations system and other continuously-running systems and scientific applications in AT&T are described.



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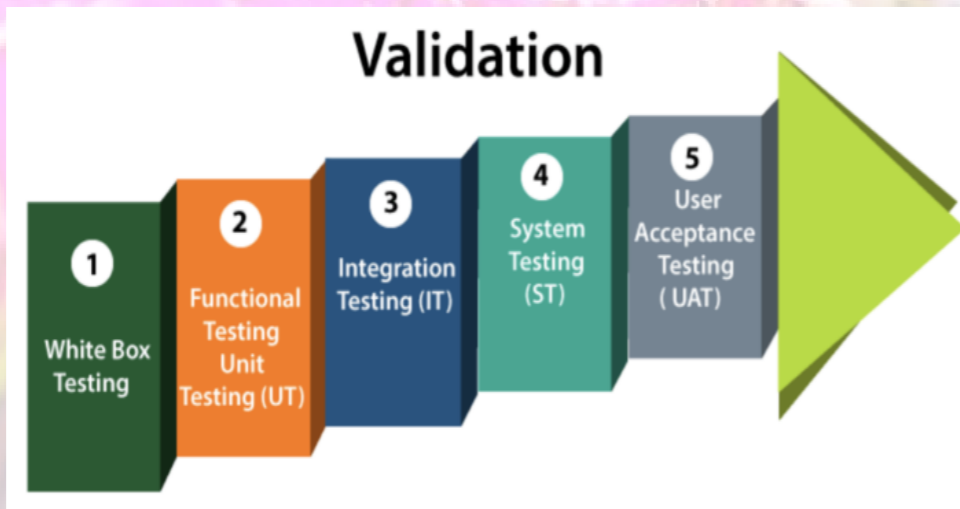
Lab Session on Testing tools to Verify and validate the constructed Automata (Online)



-Aon Hewitt (13/10/2020)

Verification tests must be run at every stage of development before any feature is implemented.

Validation tests must be run after every feature or step in the development process is completed. For example, unit tests, a form of validation tests, are run after every unit of code has been created. Integration tests are run after multiple modules have been completed individually and are ready to be combined.



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SHINING BGIETIANS



BGIET provides a platform to students to nurture their professional skills. It also builds an environment with future brains and upright the qualities of a student. I would like to thank BGIET for blessing me with such a great opportunity in every field and to enhance my skills for a better life.

Isha Aggarwal (CSE)
CAPGEMINI India

BGIET provides a ladder to go ahead with education, which supports us throughout our life and makes us different and makes us excel in our lives. I can speak with immense happiness that my life has completely changed by the quality education.

Himanshu (CSE)
BIZ DATA Inc



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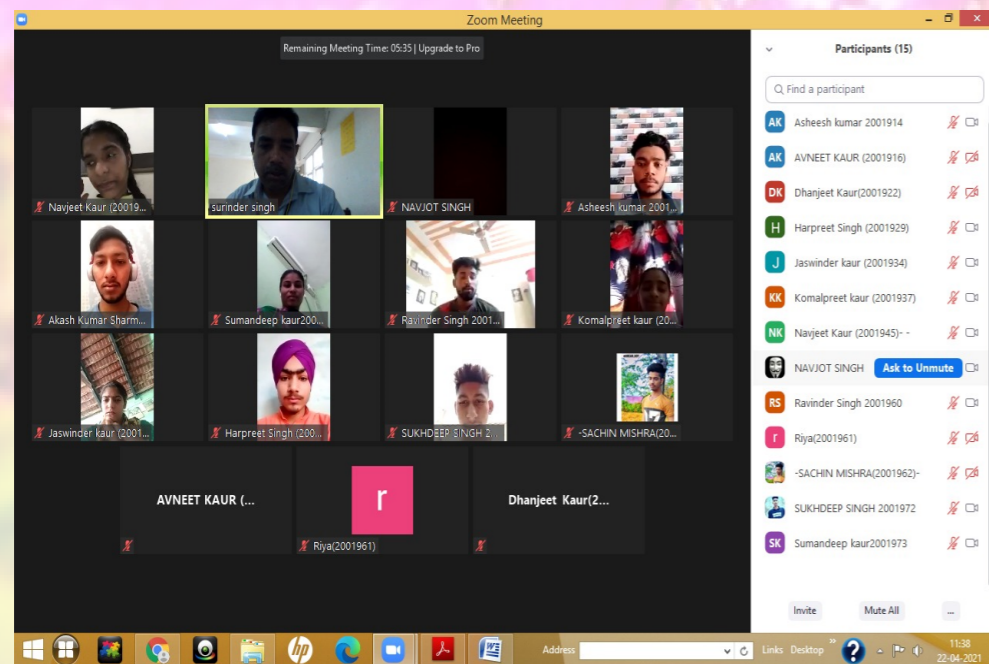
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Techno-Quiz (Online)



Techno Quiz was conducted in the month of July by the CSE Department to increase the practical and theoretical knowledge of students. The test was conducted Online under the supervision of our faculty member Er. Surinder Singh. Students got to know their scores right after completion of the event on their computer screens.

Questions related to C++, Java, Python, Database and numerous platforms like netbeans, eclipse were asked to the students to impart basic knowledge immaculately. There was a discussion afterwards regarding clearing the doubts. All the faculty members of CSE were present Online through Zoom platform. It was a great event, all the students were satisfied with the results.



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