EPAM

A Training Report

Submitted in partial fulfilment of the requirements for the award of degree of

Bachelor of Technology

Computer Science and Engineering

LOVELY PROFESSIONAL UNIVERSITY

PHAGWARA, PUNJAB

SUBMITTED BY

Team: Rahul (11901965),Pradeep(11914539),Anil(11919112)

Student Declaration To whom so ever it may concern

We Rahul,Anil,Pradeep hereby declare that the work done by us on "Testing Automation Training" from 13 th Jan-2023 to 28th April-2023, under the Internal supervisor - Sakshi Lovely Professional University, Phagwara, Punjab, is a record of original work for the partial fulfilment of the requirements for the award of the degree Computer Science and Engineering.

Name of the Student (Registration Number)

Team: Rahul (11901965),Pradeep(11914539),Anil(11919112)

Declaration by the supervisors To whom so ever it may concern

This is to certify that Rahul (11901965),Pradeep(11914539),Anil(11919112)

from Lovely Professional University, Phagwara, Punjab, have worked as a trainee in EPAM on "Testing Automation" under my supervision from 13th Jan 2023 to 28th April 2023. It is further stated that the work carried out by thestudent is a record of original work to the best of my knowledge for the partial-fulfillment of the requirements for the award of the B-TECH, Computer Science and Engineering.

Name of Internal Supervisor

Sakshi (Assistant Professor)

Dated: 28/04/2023

ABOUT EPAM

EPAM India is a subsidiary of EPAM Systems, a global provider of software engineering and IT consulting services. EPAM India was established in 2004 in Hyderabad and has since grown to become one of the company's largest and most strategic locations, serving clients across India, Asia-Pacific, and the rest of the world.

EPAM India provides a range of software engineering and IT consulting services, including software development, testing, maintenance, and support. The company serves clients in a wide range of industries, including financial services, healthcare, technology, travel, and more. EPAM India has a team of over 12,000 professionals spread across multiple locations in India, including Hyderabad, Bangalore, Pune, and Chennai.

EPAM India has a strong reputation in the Indian software engineering market, with a focus on quality, innovation, and customer-centricity. The company's team of professionals includes some of the best software engineers and IT consultants in India, who are committed to delivering high-quality solutions to clients around the world.

One of the key strengths of EPAM India is its ability to leverage local talent and expertise to deliver customized solutions that meet the unique needs of its clients. India is home to some of the world's best software engineering talent, and EPAM India has been able to attract and retain top talent from across the country. This has enabled the company to build a strong culture of innovation and excellence, which is reflected in the quality of its work and its long-term client relationships.

EPAM India is also committed to giving back to the local community and has launched several initiatives aimed at promoting education and skills development in the country. The company has partnered with local universities and schools to provide training and mentoring to students, helping to build the next generation

of software engineering talent in India. EPAM India has also launched several employee-led CSR initiatives, focused on healthcare, education, and the environment.

In addition to its focus on delivering high-quality solutions and giving back to the community, EPAM India is also committed to building a diverse and inclusive workplace. The company has launched several initiatives aimed at promoting diversity and inclusion, including employee resource groups focused on women, LGBTQ+ individuals, and people with disabilities. EPAM India has also been recognized for its commitment to diversity and inclusion, winning several awards and accolades in this area.

Overall, EPAM India is a key strategic location for EPAM Systems, providing high-quality software engineering and IT consulting services to clients around the world. With its focus on quality, innovation, and customer-centricity, as well as its commitment to giving back to the local community and promoting diversity and inclusion, EPAM India is well-positioned to continue its growth and success in the years ahead.

EPAM Systems is a global software engineering services company that was founded in 1993 in Belarus. The company started as a small team of software developers in Minsk, the capital of Belarus, and has since grown into a multinational corporation with over 41,000 employees across 35 countries.

In the year 2000, EPAM was still a relatively small company with around 250 employees. However, even at this early stage, the company had already established itself as a leading provider of software engineering services. In the early 2000s, EPAM began to expand its operations beyond Belarus and into other countries in Eastern Europe, including Russia and Ukraine.

At the time, EPAM was primarily focused on providing software development services for clients in the United States and Western Europe. The company had developed a reputation for delivering high-quality software solutions on time and within budget, which helped it to win contracts with a number of large multinational corporations.

One of the key factors driving EPAM's success in the early 2000s was its focus on developing deep expertise in specific technology domains. Rather than trying to be a jack-of-all-trades, the company chose to focus on a few key areas where it could differentiate itself from its competitors.

For example, EPAM became an early adopter of Java and quickly developed a reputation as a leading provider of Java development services. The company also invested heavily in building expertise in other emerging technologies, such as .NET, mobile development, and cloud computing.

EPAM's focus on technology expertise helped it to win contracts with clients in a range of industries, including finance, healthcare, and retail. Some of the company's early clients included Citigroup, UBS, and Panasonic.

In addition to its technology expertise, EPAM also had a strong focus on process and methodology. The company was an early adopter of Agile methodologies and had developed its own proprietary Agile framework, which it called eXtensible Agile Process (XAP).

XAP was designed to provide a flexible and customizable framework for software development projects of all sizes. The framework emphasized collaboration, communication, and continuous improvement, and was designed to help teams deliver high-quality software solutions on time and within budget.

EPAM's focus on technology expertise and process excellence helped it to grow rapidly in the early 2000s. By 2005, the company had more than 1,000 employees and was generating more than $50 million in annual

revenue.

In the years that followed, EPAM continued to expand its operations and grow its client base. The company opened new offices in a number of countries, including the United States, Canada, and China, and continued to develop its expertise in emerging technologies.

Today, EPAM is a global leader in software engineering services, with over 41,000 employees and more than $3 billion in annual revenue. The company continues to focus on developing deep expertise in specific technology domains and delivering high-quality software solutions to clients around the world.

In 1998, EPAM opened its first office outside of Belarus, in Princeton, New Jersey. This was a strategic move to establish a presence in the United States and to be closer to its clients. Over the next few years, EPAM continued to expand its operations, opening offices in Hungary, Russia, Ukraine, and India.

In 2004, EPAM Systems became the first software development company from Belarus to be listed on the NASDAQ stock exchange. This was a significant achievement for the company and helped to raise its profile in the international business community.

Over the next few years, EPAM continued to grow, expanding its services to include product development, testing, and maintenance. The company also began to focus on specific industries, including banking, insurance, healthcare, and retail.

In 2012, EPAM Systems acquired Thoughtcorp, a Toronto-based IT consulting firm. This acquisition helped to strengthen EPAM's presence in the Canadian market and expand its services to include digital strategy consulting.

Today, EPAM Systems is a leading provider of software engineering services, with a global workforce of over 50,000 professionals. The company has offices in more than 35 countries, including the United States, Canada, United Kingdom, Germany, Switzerland, Sweden, Australia, and China.

Services Offered by EPAM Systems

EPAM Systems offers a wide range of software engineering and IT consulting services to its clients. The company's services can be broadly classified into the following categories:

Custom Software Development: EPAM provides end-to-end software development services, including requirements gathering, design, development, testing, and maintenance. The company has experience developing software for a wide range of platforms, including web, mobile, desktop, and cloud.

Product Development: EPAM helps its clients to develop and launch new products, including software applications, platforms, and digital products. The company provides a range of services, including product ideation, design, development, testing, and maintenance.

Digital Platform Engineering: EPAM helps its clients to build and maintain digital platforms, including e-commerce platforms, content management systems, and social media platforms. The company's services include platform architecture, development, integration, and maintenance.

Quality Assurance and Testing: EPAM provides a range of quality assurance and testing services to help its clients ensure the quality of their software products. The company's services include functional testing, performance testing, security testing, and test automation.

IT Consulting: EPAM provides a range of IT consulting services, including digital strategy consulting, technology consulting, and process consulting. The company's consulting services help its clients to identify and implement the best technology solutions to meet their business needs.

Clients of EPAM Systems

EPAM Systems has a diverse client base, including some of the world's largest and most recognizable companies. The company's clients come from a wide range of industries, including finance, healthcare, retail, and technology.

Expedia: EPAM provides software development and IT consulting services to Expedia, a global travel company that operates several online travel brands, including Expedia.com, Hotels.com, and Hotwire.com. EPAM helps Expedia to develop and maintain their online travel platforms and mobile applications.

UBS: EPAM provides software engineering and IT consulting services to UBS, a Swiss multinational investment bank and financial services company. EPAM helps UBS to develop and maintain their digital platforms, including their online banking portal and mobile application.

Comcast: EPAM provides software engineering and IT consulting services to Comcast, a global media and technology company that provides cable television, internet, and telephone services. EPAM helps Comcast to develop and maintain their digital platforms, including their Xfinity TV and internet services.

Citi: EPAM provides software development and IT consulting services to Citi, a global financial services company. EPAM helps Citi to develop and maintain their digital platforms, including their online banking portal and mobile application.

Johnson & Johnson: EPAM provides software engineering and IT consulting services to Johnson & Johnson, a global healthcare company. EPAM helps Johnson & Johnson to develop and maintain their digital platforms, including their online store and mobile applications.

NVIDIA: EPAM provides software development and IT consulting services to NVIDIA, a technology company that designs graphics processing units (GPUs) for gaming, professional visualization, and artificial intelligence (AI) applications. EPAM helps NVIDIA to develop and maintain their software products and digital platforms.

PayPal: EPAM provides software engineering and IT consulting services to PayPal, a global online payments company. EPAM helps PayPal to develop and maintain their digital platforms, including their online payments system and mobile application.

These are just a few of the many clients that EPAM Systems serves. The company's diverse client base is a testament to its ability to provide high-quality software engineering and IT consulting services to a wide range of industries.

OUR VALUES

Value the individual.

We perceive our people as a source of our success.

We do not micromanage and we judge by results.

We provide limitless opportunities for smart, self-motivated, proactive and collaborative individuals.

We encourage and motivate people to grow.

We tolerate mistakes, and we learn from them.

Act as a team

We treat one another with respect and communicate openly.

We encourage the best ideas to come from anywhere within the organization.

We collaborate seamlessly with others and we value our diversity.

Act with integrity

We operate legally, honestly and ethically.

We strive to conduct business with uncompromising integrity.

We take responsibility for our actions.

Strive for excellence

We strive to achieve the highest standards of excellence.

We continuously learn, develop, innovate and improve.

We take pride in our engineering and accomplishments.

Act with integrity

We operate legally, honestly and ethically.

We strive to conduct business with uncompromising integrity.

We take responsibility for our actions.

Vision And Mission

EPAM Systems is a global provider of software engineering and IT consulting services. The company was founded in 1993 in Minsk, Belarus, and has since expanded to have a presence in over 35 countries around

the world. EPAM Systems serves clients from a wide range of industries, including financial services, healthcare, technology, travel, and more.

Mission:

EPAM Systems' mission is to help clients transform their businesses through the power of software engineering and digital innovation. The company's goal is to help clients stay ahead of the curve in their respective industries by providing cutting-edge software solutions that drive business growth and improve customer experience.

EPAM Systems aims to achieve its mission by focusing on three core principles:

Customer Centricity:

EPAM Systems places a strong emphasis on understanding its clients' businesses and their unique challenges. The company works closely with clients to develop customized solutions that meet their specific needs and goals. EPAM Systems takes a customer-first approach to everything it does, and strives to build long-term partnerships with clients based on trust, transparency, and collaboration.

Innovation:

EPAM Systems is committed to staying at the forefront of digital innovation. The company invests heavily in research and development to ensure that it is always up-to-date on the latest trends and technologies. EPAM Systems also encourages its employees to be innovative and to think outside the box when it comes to problem-solving.

Quality:

EPAM Systems is dedicated to delivering high-quality solutions that meet or exceed clients' expectations. The company adheres to rigorous quality standards and best practices to ensure that its software is reliable, secure, and scalable. EPAM Systems also places a strong emphasis on continuous improvement, and regularly evaluates its processes and practices to identify areas for enhancement.

Vision:

EPAM Systems' vision is to be the leading global provider of software engineering and IT consulting services. The company's goal is to be recognized as a thought leader in the industry, and to help shape the future of digital innovation.

To achieve its vision, EPAM Systems is focused on the following key areas:

Talent:

EPAM Systems recognizes that its success depends on the talent and expertise of its employees. The company is committed to attracting and retaining top talent from around the world, and to providing a supportive and collaborative work environment that fosters creativity and innovation.

Innovation:

EPAM Systems believes that innovation is key to its success. The company invests heavily in research and development to ensure that it is always at the forefront of digital innovation. EPAM Systems also encourages its employees to be innovative and to think outside the box when it comes to problem-solving.

Growth:

EPAM Systems is focused on driving sustainable growth through strategic investments and acquisitions. The company is constantly exploring new markets and opportunities to expand its reach and to better serve its clients.

Social Responsibility:

EPAM Systems is committed to being a responsible corporate citizen. The company strives to make a positive impact on the communities where it operates, and to promote environmental sustainability through its operations.

Overall, EPAM Systems' mission and vision reflect the company's commitment to providing high-quality software engineering and IT consulting services, and to being a leader in digital innovation. By staying customer-focused, innovative, and quality-driven, EPAM Systems aims to help clients transform their businesses and to shape the future of the industry.

Company Core Values:-

EPAM Systems has a set of core values that guide its employees in their work and interactions with clients and each other. These core values reflect the company's commitment to excellence, innovation, and ethical business practices. The core values of EPAM Systems are:

Continuous Learning:

EPAM Systems encourages its employees to pursue continuous learning and professional development. The company provides opportunities for employees to attend training programs, conferences, and other educational events to enhance their skills and knowledge. The company also promotes a culture of knowledge sharing and collaboration to foster ongoing learning.

Respect:

EPAM Systems values respect for its employees, clients, and partners. The company strives to create an inclusive work environment where all employees feel valued and appreciated. EPAM Systems also

prioritizes building respectful relationships with clients and partners based on trust, transparency, and mutual respect.

Integrity:

EPAM Systems operates with integrity and ethical business practices. The company upholds high standards of honesty, transparency, and accountability in all of its dealings with clients, employees, and partners. EPAM Systems also maintains strict confidentiality and data security practices to protect client information.

Agility:

EPAM Systems values agility in responding to client needs and market changes. The company is flexible and adaptable, and is committed to delivering high-quality solutions quickly and efficiently. EPAM Systems also embraces change and innovation, and encourages its employees to think creatively and experiment with new ideas.

Collaboration:

EPAM Systems values collaboration and teamwork. The company fosters a culture of openness and communication, and encourages its employees to work together to solve problems and achieve shared goals. EPAM Systems also collaborates closely with clients and partners to develop customized solutions that meet their specific needs.

Excellence:

EPAM Systems is committed to delivering excellence in everything it does. The company upholds high standards of quality, reliability, and performance, and is dedicated to continuous improvement. EPAM Systems also strives to exceed client expectations and to deliver solutions that drive business growth and innovation.

Overall, EPAM Systems' core values reflect the company's commitment to excellence, innovation, and ethical business practices. These values guide the company's employees in their daily work and interactions with clients and each other, and help to create a culture of respect, collaboration, and excellence.

Origin and Growth of Company :

EPAM Systems is a global provider of software engineering and IT consulting services. The company was founded in 1993 by Arkadiy Dobkin and Leo Lozner in Minsk, Belarus. EPAM Systems started as a small software development company with just four employees, but has since grown to become one of the largest and most respected software engineering firms in the world.

Origin:

Arkadiy Dobkin, the founder of EPAM Systems, was born in Belarus and studied computer science at the Minsk Institute of Radio Technology. After graduation, Dobkin worked as a software engineer in the Soviet Union's defense industry, where he gained experience working on large-scale software projects. However, Dobkin was interested in pursuing his own entrepreneurial ventures and saw an opportunity to start a software development company in Belarus.

In 1991, Dobkin moved to the United States to pursue an MBA degree at Columbia University in New York. While at Columbia, Dobkin met Leo Lozner, a fellow Belarusian and computer science graduate. Dobkin and Lozner shared a vision for starting a software development company in Belarus that could compete on a global scale.

In 1993, Dobkin and Lozner founded EPAM Systems in Minsk, Belarus. The company initially focused on providing software development services to clients in the United States and Europe, leveraging Belarus' highly skilled and educated workforce to offer high-quality, cost-effective solutions.

Growth:

EPAM Systems began its journey with just four employees, but quickly grew as the company started to gain traction in the global software development market. In the late 1990s, the company established its first office in the United States, in Princeton, New Jersey. This move allowed EPAM Systems to better serve its clients in North America and to expand its reach in the US market.

Throughout the 2000s, EPAM Systems continued to grow rapidly, expanding its global footprint and diversifying its service offerings. The company opened offices in India, China, Hungary, Russia, and other countries, as it sought to tap into local talent and expertise. EPAM Systems also expanded its service offerings to include not just software development, but also testing, maintenance, and other IT consulting services.

In 2004, EPAM Systems became a public company, listing on the New York Stock Exchange (NYSE) under the ticker symbol EPAM. The company's IPO was a major milestone, demonstrating its commitment to transparency and accountability, and providing a platform for future growth and investment.

EPAM Systems continued to build its reputation as a leader in software engineering and IT consulting, winning numerous awards and accolades for its work. In 2019, the company was ranked #6 on Forbes' list of America's Best Employers for Diversity, and #22 on Forbes' list of America's Best Midsize Employers.

Today, EPAM Systems has a presence in over 35 countries around the world and employs more than 47,000 people. The company serves clients in a wide range of industries, including financial services, healthcare, technology, travel, and more. EPAM Systems' success can be attributed to its commitment to excellence, innovation, and customer-centricity, as well as its focus on attracting and retaining top talent from around the world.

EPAM Systems has experienced tremendous growth since its inception in 1993, and the company continues to pursue a growth strategy that is focused on expanding its client base, entering new markets, and investing in new technologies and capabilities.

One of the key pillars of EPAM's growth strategy is its focus on building long-term relationships with its clients. The company has a proven track record of delivering high-quality solutions to its clients and has built a strong reputation for its technical expertise, innovation, and customer-centric approach. By focusing on building long-term relationships with its clients, EPAM is able to generate recurring revenue and increase its share of the clients' IT budgets over time.

Another key element of EPAM's growth strategy is its focus on geographic expansion. The company has a strong presence in North America, Europe, and Asia, but it is also actively pursuing opportunities in other regions, including Latin America and the Middle East. By expanding its geographic footprint, EPAM is able to tap into new markets and access new clients, thereby increasing its revenue and diversifying its client base.

EPAM is also investing in new technologies and capabilities to drive growth. The company has a strong focus on digital transformation and is investing heavily in areas such as artificial intelligence, machine learning, and blockchain. By developing expertise in these emerging technologies, EPAM is able to offer its clients cutting-edge solutions that help them stay ahead of the competition.

In addition to organic growth, EPAM is also pursuing growth through strategic acquisitions. The company has a track record of successful acquisitions, including the acquisition of Dextrys in 2015, which helped EPAM expand its presence in China, and the acquisition of Continuum in 2019, which added capabilities in design and innovation consulting. By acquiring complementary businesses, EPAM is able to accelerate its growth and gain access to new clients and markets.

Overall, EPAM Systems' growth strategy is focused on building long-term relationships with its clients, expanding its geographic footprint, investing in new technologies and capabilities, and pursuing strategic acquisitions. By executing on this strategy, EPAM is well-positioned to continue its strong growth trajectory and deliver value to its clients and shareholders in the years ahead.

Various departments and their functions:

EPAM Systems is a leading global provider of digital platform engineering and software development services. The company has more than 41,000 employees worldwide and operates in over 35 countries. EPAM serves clients in various industries, including healthcare, financial services, technology, media and entertainment, and retail. EPAM has a diverse range of departments and functions, each contributing to the company's success. In this article, we will discuss some of the key departments and functions within EPAM.

1. Delivery Management: The delivery management department is responsible for overseeing project delivery, ensuring that projects are delivered on time, within budget, and to the client's satisfaction. The department is responsible for project planning, resource allocation, risk management, and quality control.

2. Engineering: The engineering department is responsible for designing and developing digital platforms and software solutions. The department includes software engineers, architects, and designers who use the latest technologies and tools to develop cutting-edge solutions.

3. Quality Assurance: The quality assurance department is responsible for ensuring that EPAM's products and services meet the highest quality standards. The department is responsible for testing software, identifying and reporting defects, and providing feedback to the engineering department to improve the quality of EPAM's products.

4. Business Analysis: The business analysis department is responsible for analyzing clients' business needs and translating them into technical requirements. The department works closely with clients to understand their business processes, identify pain points, and recommend solutions that improve efficiency and productivity.

5. Sales: The sales department is responsible for identifying new business opportunities, developing relationships with potential clients, and closing deals. The department includes sales representatives, account managers, and business development managers who work closely with clients to understand their needs and propose solutions that meet their requirements.

6. Marketing: The marketing department is responsible for promoting EPAM's products and services to potential clients. The department includes digital marketers, content creators, and event planners who use various channels, such as social media, email marketing, and events, to raise awareness of EPAM's offerings.

7. Human Resources: The human resources department is responsible for recruiting, training, and retaining EPAM's employees. The department is responsible for creating a positive work environment, developing employee skills, and providing competitive compensation and benefits packages.

8. Finance: The finance department is responsible for managing EPAM's financial resources, including budgeting, forecasting, and financial reporting. The department is responsible for ensuring that EPAM's financial performance is healthy and sustainable.

9. Legal: The legal department is responsible for ensuring that EPAM's operations comply with legal and regulatory requirements. The department includes lawyers and legal specialists who provide advice and support on legal matters, such as contracts, intellectual property, and data protection.

10. Operations: The operations department is responsible for managing EPAM's infrastructure and facilities. The department includes IT specialists, facilities managers, and logistics coordinators who ensure that EPAM's operations run smoothly and efficiently.

11. Innovation: The innovation department is responsible for exploring new technologies and trends and identifying opportunities to apply them to EPAM's products and services. The department includes researchers, designers, and strategists who work on developing new ideas and approaches that can help EPAM stay ahead of the competition and offer cutting-edge solutions to its clients.

12. Global Business Units: EPAM has several global business units (GBUs) that specialize in different industries and domains. The GBUs include healthcare, financial services, travel and hospitality, retail and distribution, media and entertainment, and software and high-tech. Each GBU has a team of experts who understand the specific challenges and opportunities in their respective industries and provide customized solutions to clients.

13. Talent Development: The talent development department is responsible for developing EPAM's employees' skills and capabilities. The department includes trainers, coaches, and mentors who provide training programs, certifications, and career development opportunities to help employees grow and advance their careers within the company.

14. Customer Experience: The customer experience department is responsible for ensuring that EPAM's clients have a positive experience working with the company. The department includes customer success managers, customer support specialists, and account managers who work closely with clients to understand their needs and provide solutions that meet their requirements.

15. Cybersecurity: The cybersecurity department is responsible for ensuring that EPAM's products and services are secure and protected from cyber threats. The department includes cybersecurity experts who identify and mitigate potential vulnerabilities, provide security assessments and audits, and develop cybersecurity strategies and policies.

16. Cloud and Infrastructure: The cloud and infrastructure department is responsible for managing EPAM's cloud-based infrastructure and ensuring that it is scalable, reliable, and secure. The department includes cloud architects, DevOps engineers, and infrastructure specialists who use the latest cloud technologies and tools to provide optimal solutions for EPAM's clients.

17. Data Science and Analytics: The data science and analytics department is responsible for analyzing data and providing insights that help clients make informed decisions. The department includes data scientists, analysts, and engineers who use advanced analytics tools and technologies to extract value from data and provide actionable insights.

18. Product Management: The product management department is responsible for defining and managing EPAM's product portfolio. The department includes product managers, product owners, and product marketing specialists who work closely with clients and the engineering department to develop and launch new products and features that meet market needs.

Report

BEWAKOOF Shopping Web Application

Document Details:

Title	**Test strategy document for Bewakoof Shopping web application**
Date	26-04-2023
File name	Test Strategy Bewakoof Shopping
Author	Team Bewakoof shopping
Team	Rahul, Anil, Pradeep

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1.SCOPE

The Shopping application is termed as selling and buying behaviour of products and services over the internet. This online shopping system provides a 24×7 service, that is customers can surf the website, place orders anytime they wish to. It is also referred to as the sales of different items on the marketplaces in which money transaction activity takes place.

Functional Requirements:

- The main page consists of Logo of Application, Login/signup page, offers page, product page, profile page and helpline details under the bottom of Home page.
- The page consists of options such as product size, color, and type. There is a sorting feature to filter out products. There is also the "Add to Cart" or "Go to cart" feature present in the category pages**.**
- The page Consists of the product title, description, product images, related products, Add to Cart feature, Product comparison, additional product information.
- The Page consist of list view, removing the product from the list, cash on delivery option, Select delivery option, card payment, pay now option.

Non Functional Requirements:

Capturing the behavior when a large number of people are using the software at the same time. Most of the time it is experienced that the servers are busy or unavailable due to heavy load.

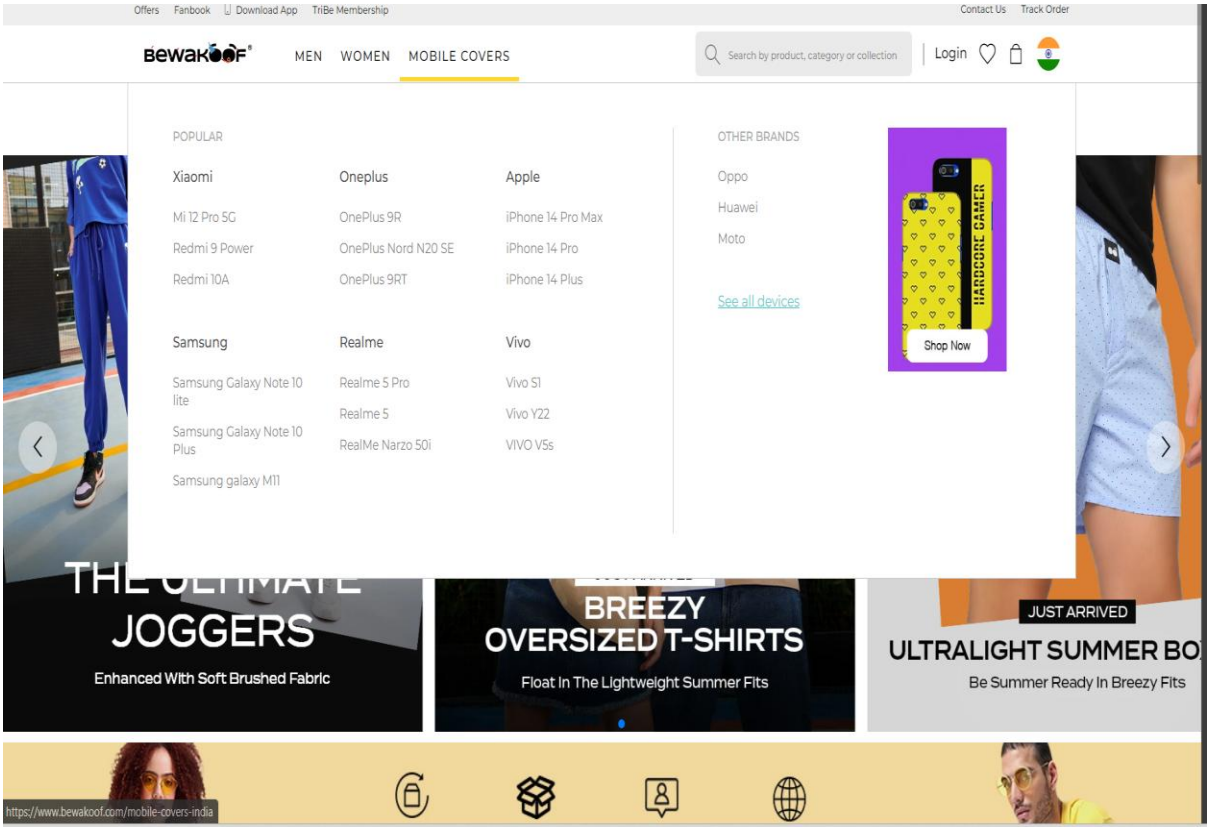
- Validates that the system meets the expected response time. Evaluates that the significant elements of the application meet the desired response time.
- Whether the Application easy to use.

2.OVERVIEW

Online Shopping is a lifestyle e-commerce web application, which retails various fashion and lifestyle products (Currently Men's and Women's wear). This project allows viewing various products available enables registered users to purchase desired products instantly using Card payment, Net banking and UPI processor (Instant Pay) and also can place order by using Cash on Delivery (Pay Later) option. This project provides an easy access to Administrators and Managers to view orders placed using Pay Later and Instant Pay options. The main

purpose of this Shopping application is where product like clothes can be bought from the comfort of home through the Internet.

www.bewakoof.com



3.TEST APPROACH

- Test levels
- Test types
- Roles and responsibilities
- Environment requirements (hardware and software requirements).

4.TEST LEVELS

During the testing process the testers tested application in various levels. Such as, Unit testing, Integration testing, system testing and user acceptance testing.

Test Types:

- **FUNCTIONAL TESTING:**

  A Test is a set of preconditions, procedures (inputs or actions), and expected results used to determine whether a system works correctly. Test cases should have the following structure: a brief statement of purpose, description of precondition, actual test case inputs, expected outputs, description of expected postconditions, and execution history (date/person in charge/product version/pass or fail result).

- **USABILITY TESTING :**

  Usability testing is defined as the evaluation of a product by testing it on potential users. To test how users will add multiple items in the cart. Is it easy for them to set the prices in their desired currency? Can they choose their preferred payment method without any hassle? if users can pick the payment methods they want, you can evaluate whether the website shows payment methods valid for the user's country.

- **INTERFACE TESTING :**

  ensure that end-users or customer should not encounter any problem when using Application. to check its user-friendliness as well. To verify security requirements while communication propagates between the systems and check if a solution is capable to handle network failures between an application server and website.

- **COMPACTIBILITY TESTING :**

  It helps avoid issues related to versions updates, navigation flows, screen size adaptation, broken tables or frames, etc. and the testing will done in

  - Testing on PC, on different browsers like Safari, Chrome, Firefox, IE.

- Testing on different mobile devices that have different platforms like iOS, Android or Windows.
- Testing on networks like 4G, 3G or wifi.
- Testing on multiple operating systems such as Mac, Windows, Linux.

- **PERFORMANCE TESTING :**

  Performance Testing is that type of software testing that pinpoints on how a system running the system performs under a particular circumstance. Performance testing measures depending on the benchmarks and standards. Performance testing helps the developers to eliminate the bottlenecks. Performance of a mobile or a web application is basically its capability of performing all the functions which it is supposed to do flawlessly without causing any delay or complication. its primary work, such as loading pages, showing the products, bringing out proper search results for the viewers, and loading the pages on time as well.

5.ROLES AND RESPONSIBILITIES

- Creating, enhancing, debugging, and running the test cases.
- Collating and monitoring the defect management process.
- Managing the changes and executing regression tests.
- Coming up with exact solutions for problems related to object identity and error handling.
- Interacting with customers/clients to solve the various issues they face and updating on the situation.
- Automating the design of a framework.
- Implementing it as per the structure of the project.
- Creating an automation test plan and getting approval.
- Identifying and selecting the automation test cases.
- Applying various designs and documenting the automation test strategy.
- Configuring Selenium Test Environment (STE) in order to set it up.
- Participating in Selenium Environment Setup with an Integrated Development Environment (IDE).

6. ENVIRONMENT REQUIREMENTS

Software Environment:

- Operating System- windows
- Java development toolkit.

Hardware Environment:

- Processor: Dual core
- RAM: 2GB
- Hard disk: 512GB.

7.TESTING TOOLS

Software Requirements:

- Selenium Testing tool.
- Jenkins

Hardware Requirements:

- Ram -2gb.
- Operation system- windows, android.

8.INDUSTRY STANDARDS USED

- **IEEE 1008-1987 - IEEE Standard for Software Unit Testing**

An integrated approach to systematic and documented unit testing is defined. It uses unit design and unit implementation information, in addition to unit requirements, to determine the completeness of the testing. The testing process described composed of a hierarchy of phases, activities, and tasks and defines a minimum set of tasks for each activity. The standard can be applied to the unit testing of any digital computer software or firmware and to the testing of both newly developed and modified units.

- **IEEE/ISO/IEC 29119-2-2013 - ISO/IEC/IEEE International Standard - Software and systems engineering —Software testing —Test processes**

The purpose of the ISO/IEC/IEEE 29119 series of software testing standards is to define an internationally-agreed set of standards for software testing that can be used by any organization when performing any form of software testing. ISO/IEC/IEEE 29119-2 comprises test process descriptions that define the software testing processes at the organizational level, test management level and dynamic test levels. It supports dynamic testing, functional and non-functional testing, manual and automated testing, and scripted and unscripted testing. The processes defined in ISO/IEC/IEEE 29119-2 can be used in conjunction with any software development lifecycle model. Since testing is a key approach to risk-mitigation in software development, ISO/IEC/IEEE 29119-2 follows a risk-based approach to testing. Risk-based testing is a common industry approach to strategizing and managing testing. Risk-based testing allows testing to be prioritized and focused on the most important features and functions.

- **IEEE/ISO/IEC 29119-3-2013 - ISO/IEC/IEEE International Standard - Software and systems engineering — Software testing —Test documentation**

The purpose of the ISO/IEC/IEEE 29119 series of software testing standards is to define an internationally-agreed set of standards for software testing that can be used by any organization when performing any form of software testing. ISO/IEC/IEEE 29119-3 includes templates and examples of test documentation. The templates are arranged within clauses reflecting the overall test process description structure in ISO/IEC/IEEE 29119-2, i.e. by the test process in which they are being produced. Annex A contains outlines of the contents of each document. Annex B contains mappings ISO/IEC/IEEE 29119-2. Annex C contains an overview of the examples. Annexes D to S contain examples of the application of the templates. Annex T provides mappings to existing standards. The Bibliography for this part of ISO/IEC/IEEE 29119 is at the end of the document. ISO/IEC/IEEE 29119-3 supports dynamic testing, functional and non-functional testing, manual and automated testing, and scripted and unscripted testing.

9.TEST DELIVERABLES

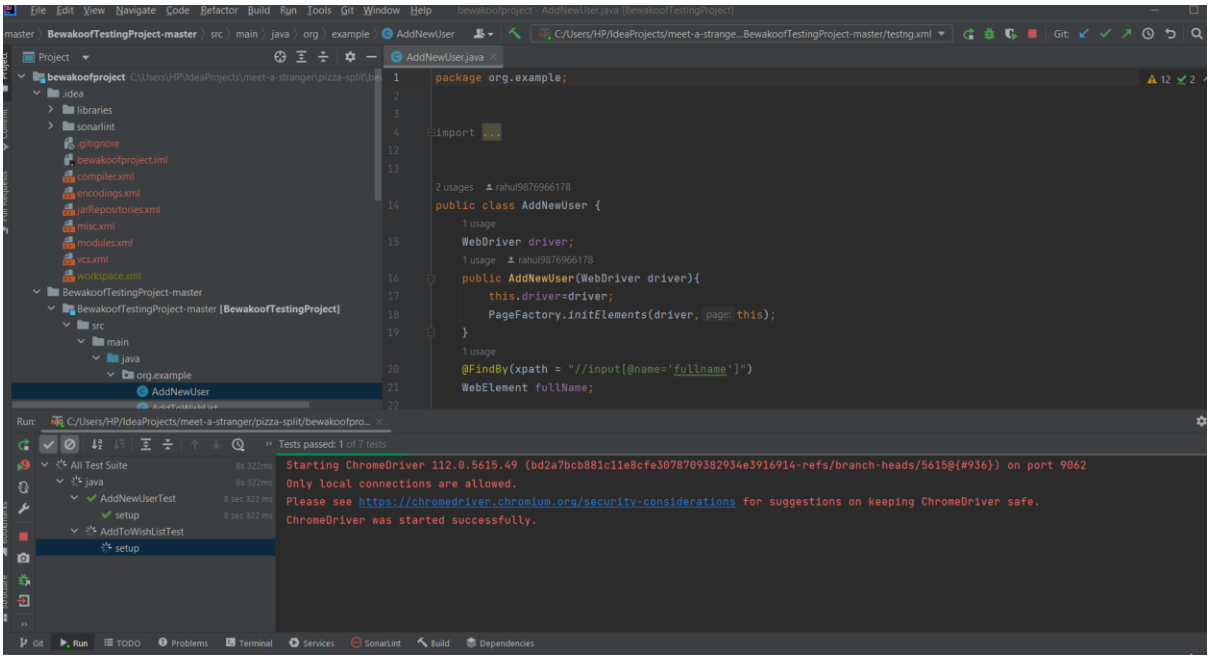
- Test Scenario
- Test cases and data
- Requirement traceability matrix.
- Test summary report
- Test closure report

9.1 Test Scenarios For shopping Web application:

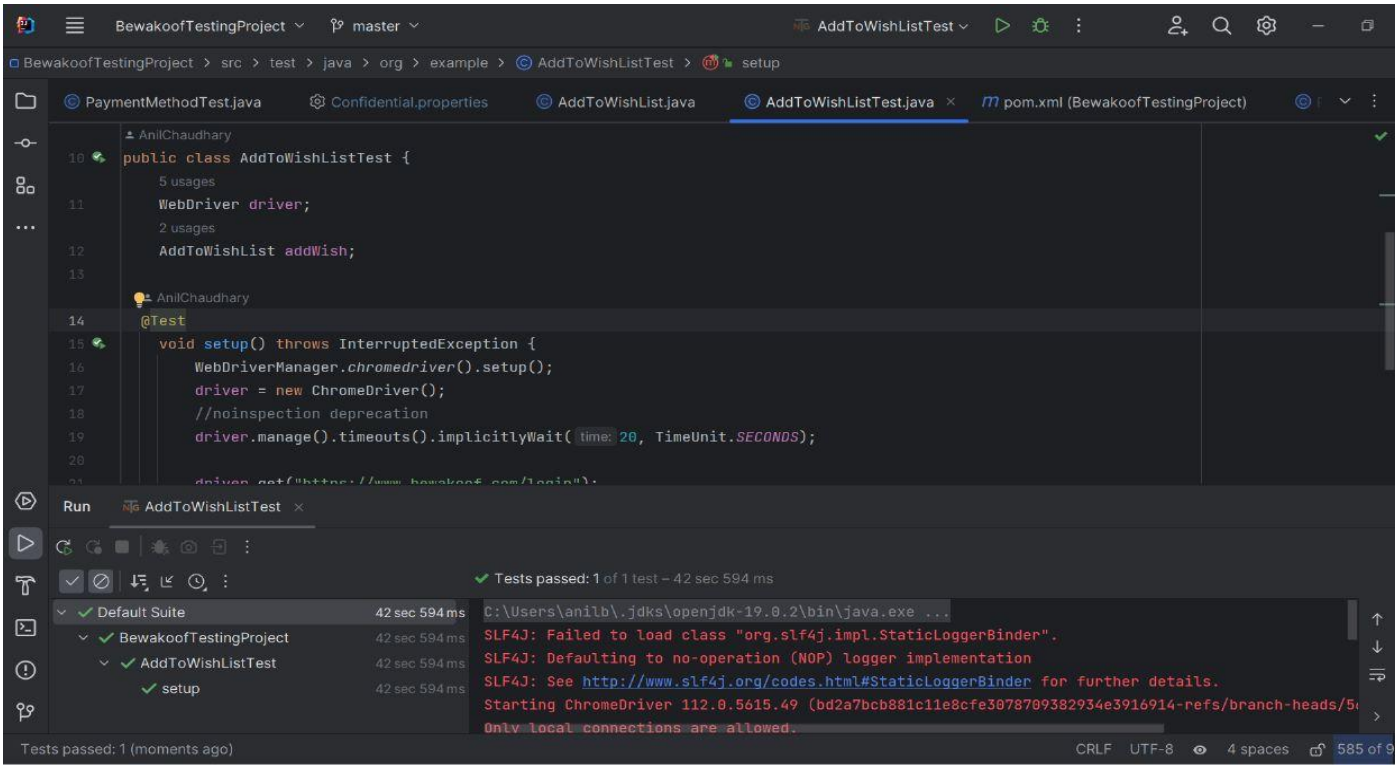
SN	Test scenario ID	Test Objective/Test scenarios
1	AddNewUserTest	Validating the "Personal Details" feature as a new user.
2	AddToWishlist	Validate already existing users username and password
3	ExistingUser	Validate already existing users username and password
4	PaymentMethod	Selecting the Payment option for buying the product
5	Productfeild	Checking the product page,that user can select the desired attribute of the product.
6	SearchFeild	Searching for the product by their names
7	PriceSorting	Check the product availability,product price and price sorting

9.2 Test cases Data:

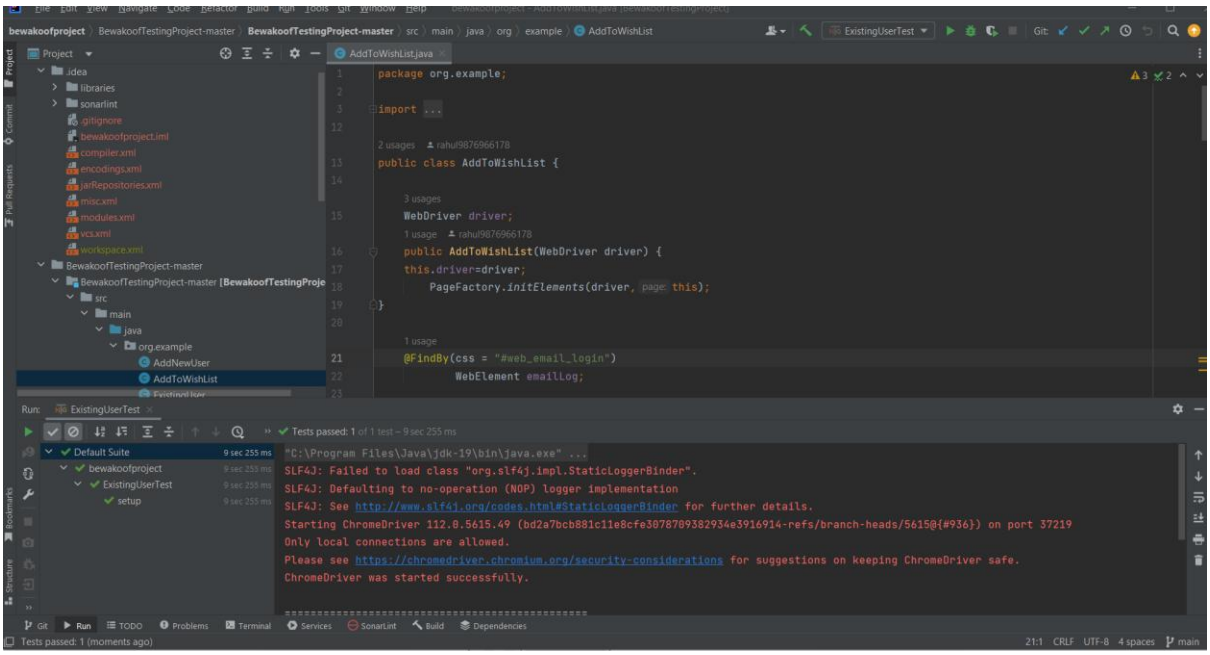
1. AddNewUserTest:-



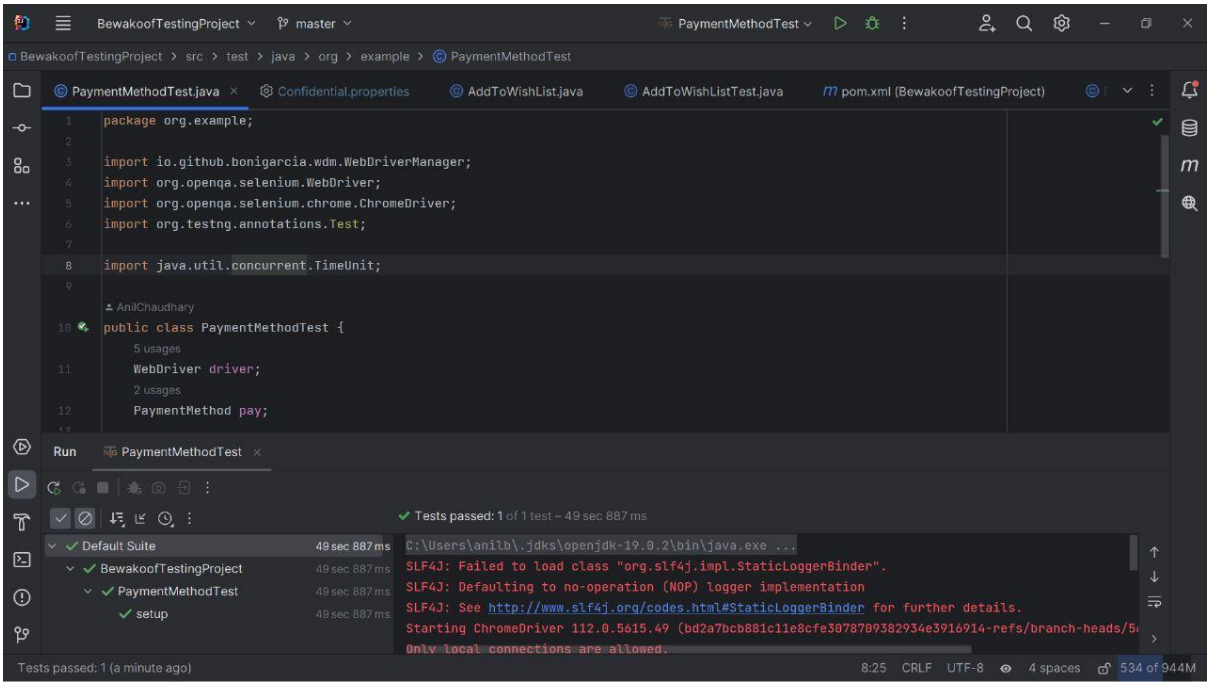
2.Addtowishlist:



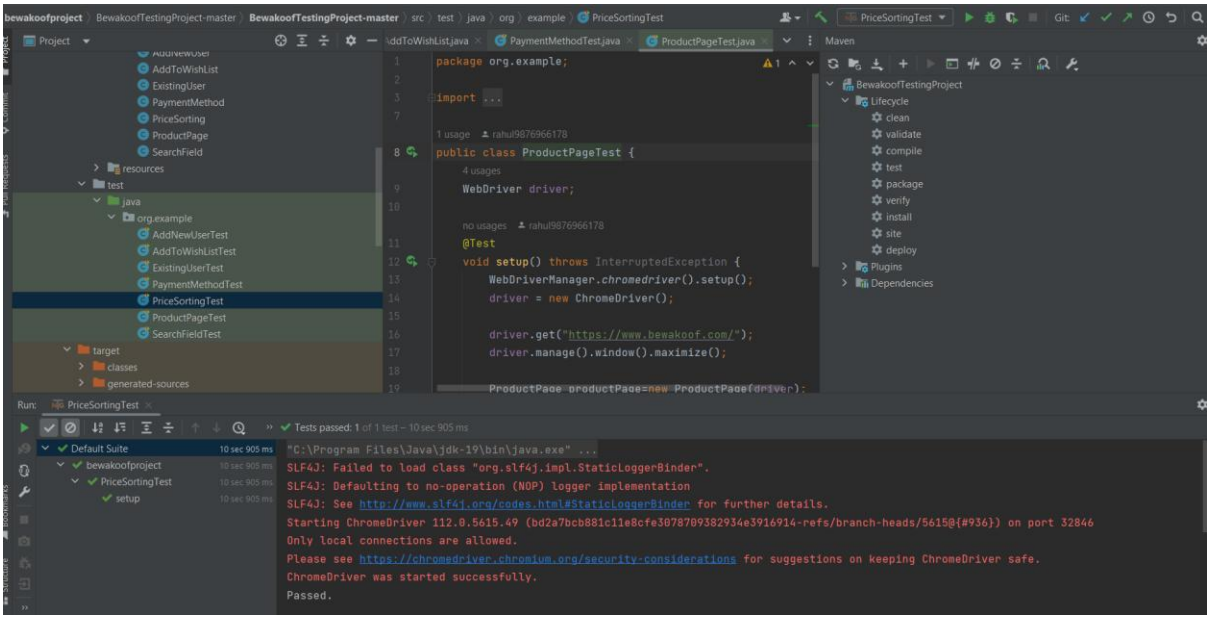
3.ExistingUserTest



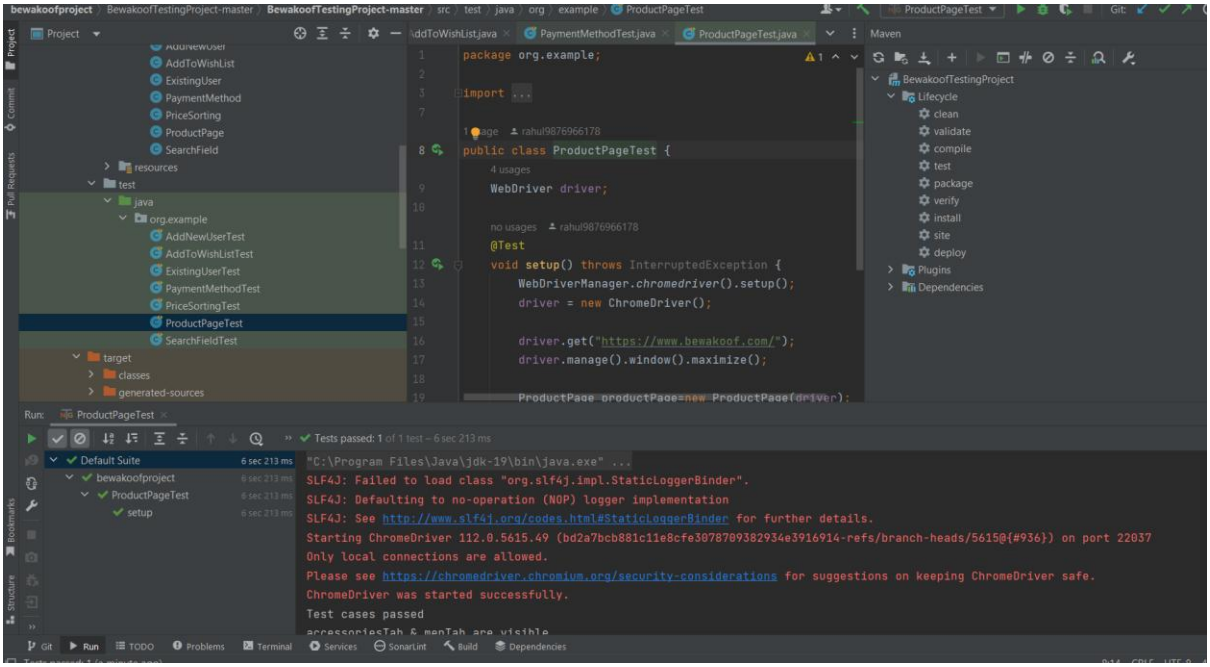
4.PaymentMethod



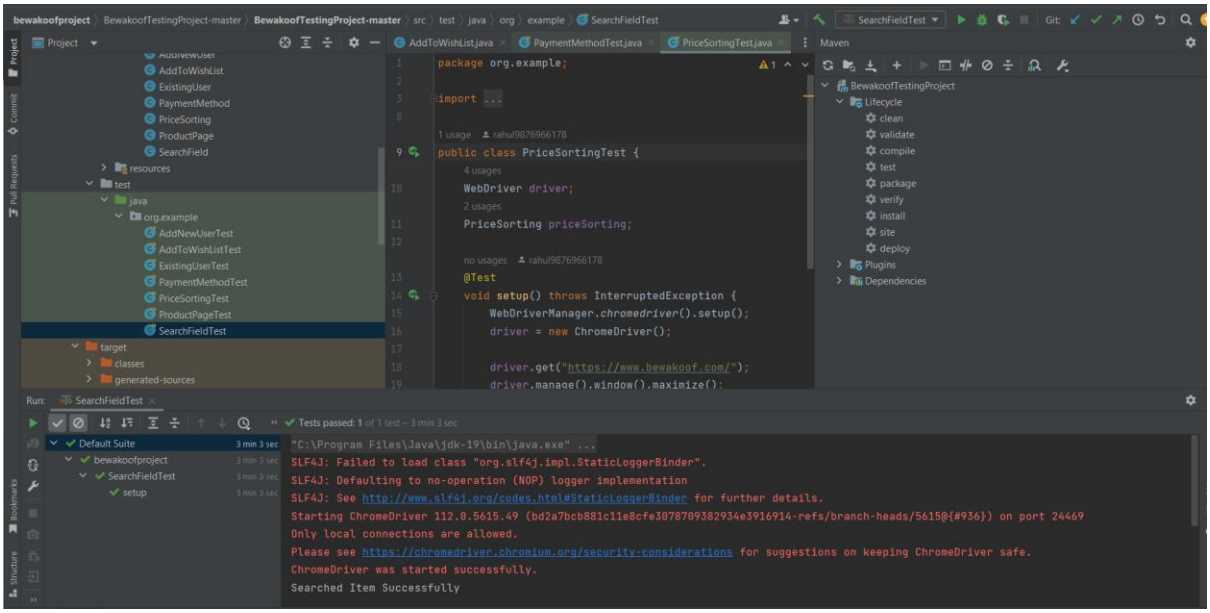
5.PriceSorting:-



6.ProductPage:



7.Searchfieldtest:

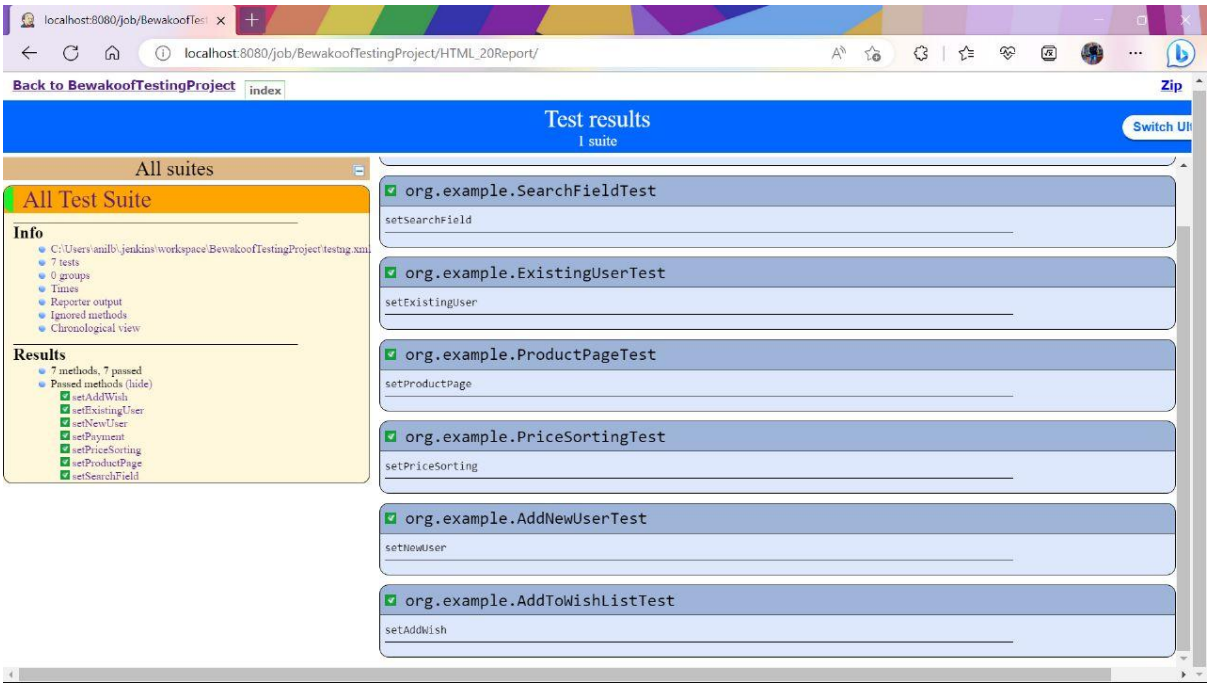


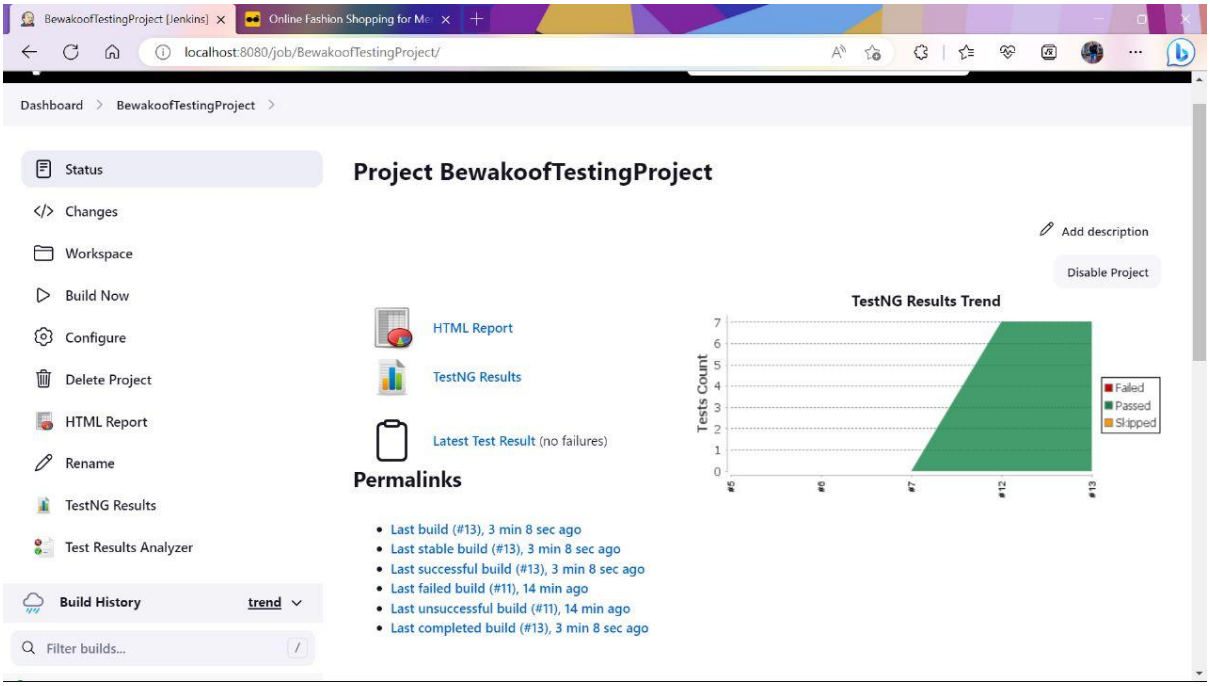
10.RISK AND MITIGATION

- Broken Access control
- Payment security
- Use secure passwords.

11.REPORTING TOOL

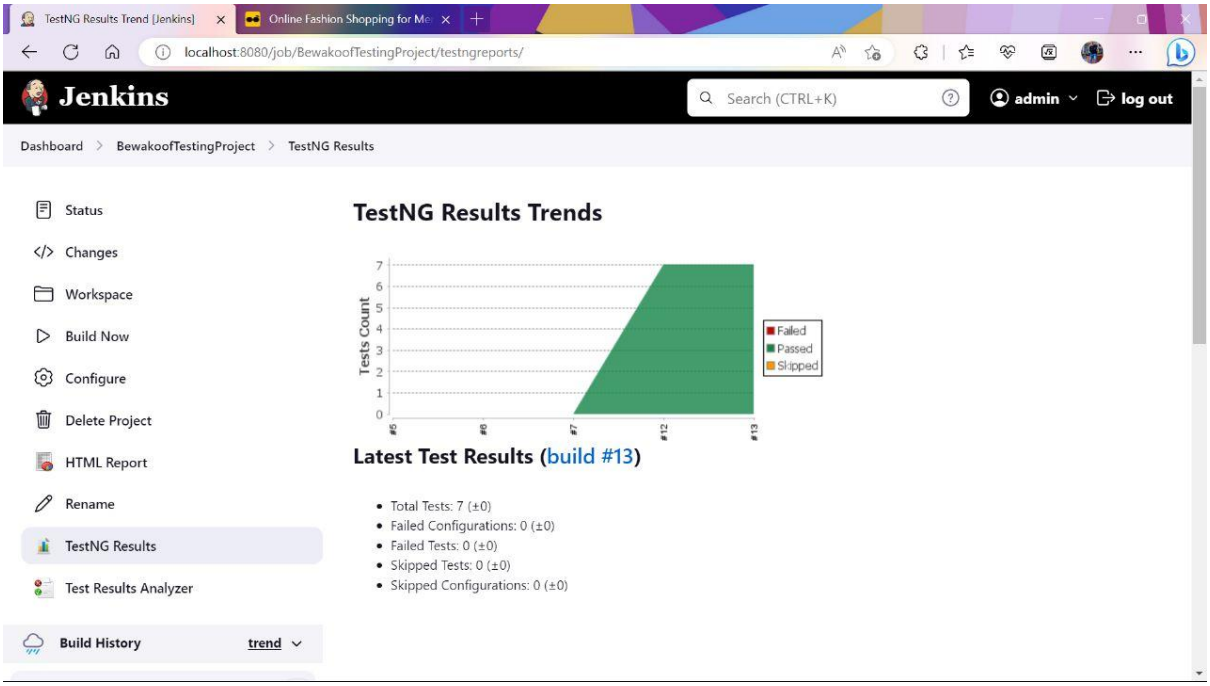
JENKINS is the reporting tool for the Project.





12.TEST SUMMARY

A Test Strategy document is created for shopping web application as per the content. It needs to be reviewing for sign-off by all entities involved in project management, business team, development team, and system administration Team.

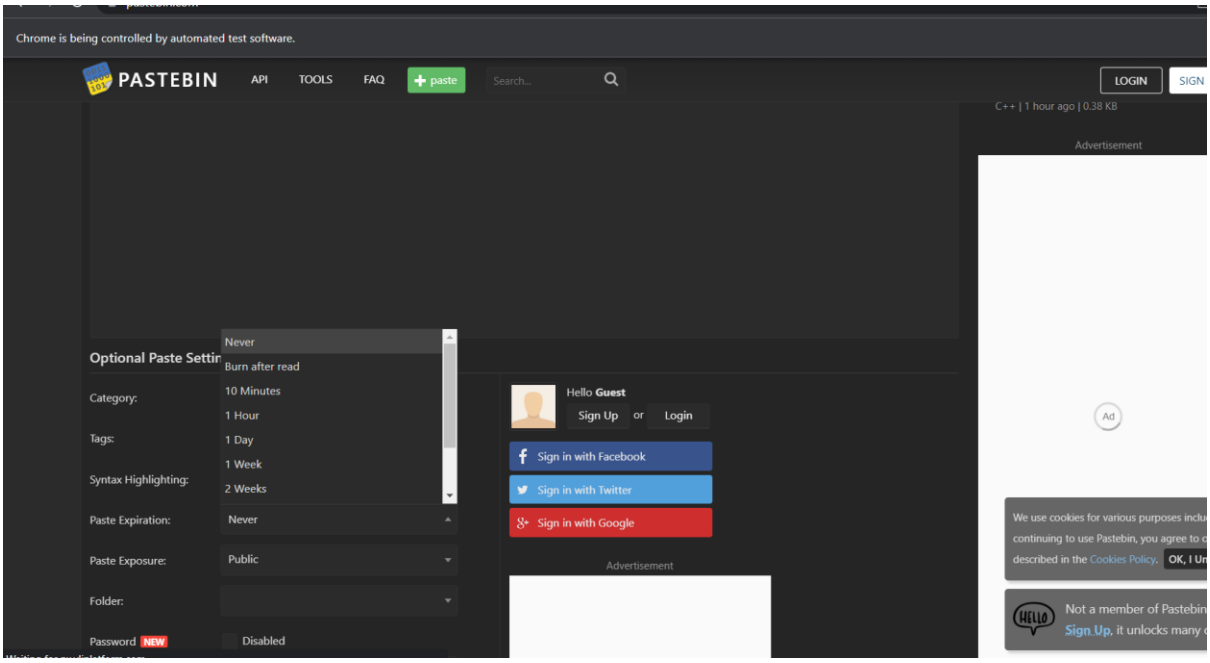

TestNG Results Trend [Jenkins]
Online Fashion Shopping for Me
localhost:8080/job/BewakoofTestingProject/testngreports/
Jenkins
Search (CTRL+K)
admin
log out
Dashboard
BewakoofTestingProject
TestNG Results
Status
Changes
Workspace
Build Now
Configure
Delete Project
HTML Report
Rename
TestNG Results
Test Results Analyzer
Build History
trend
TestNG Results Trends
Tests Count
Failed
Passed
Skipped
Latest Test Results (build #13)
Total Tests: 7 (±0)
Failed Configurations: 0 (±0)
Failed Tests: 0 (±0)
Skipped Tests: 0 (±0)
Skipped Configurations: 0 (±0)

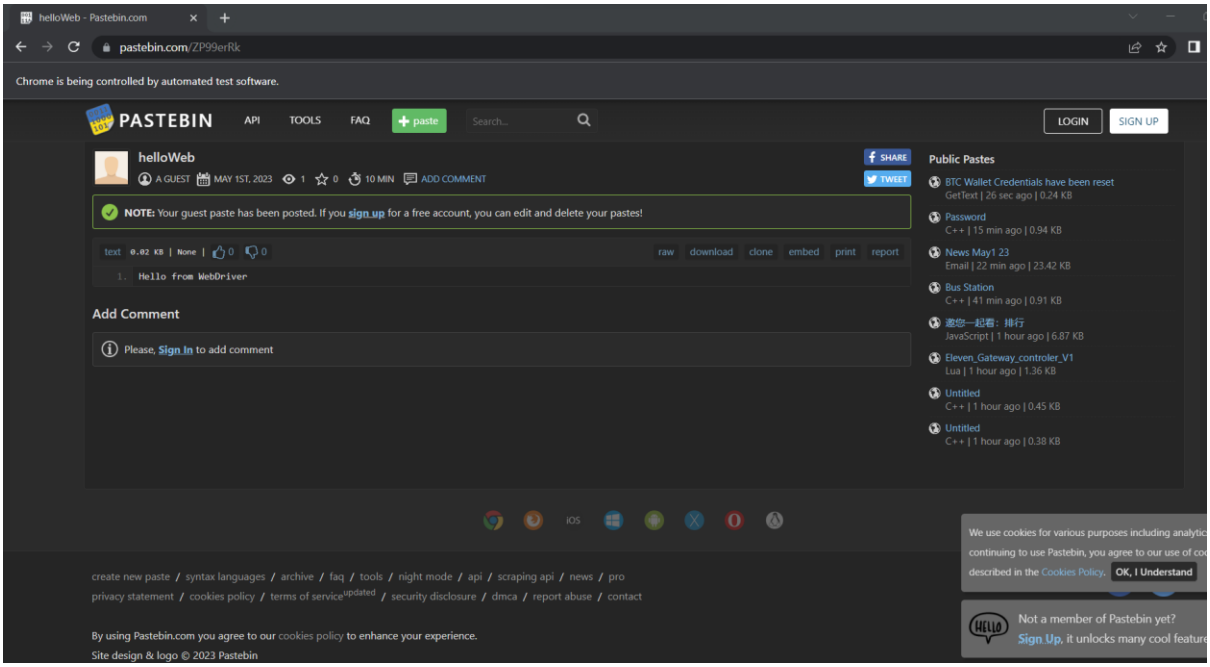
Individual Tasks

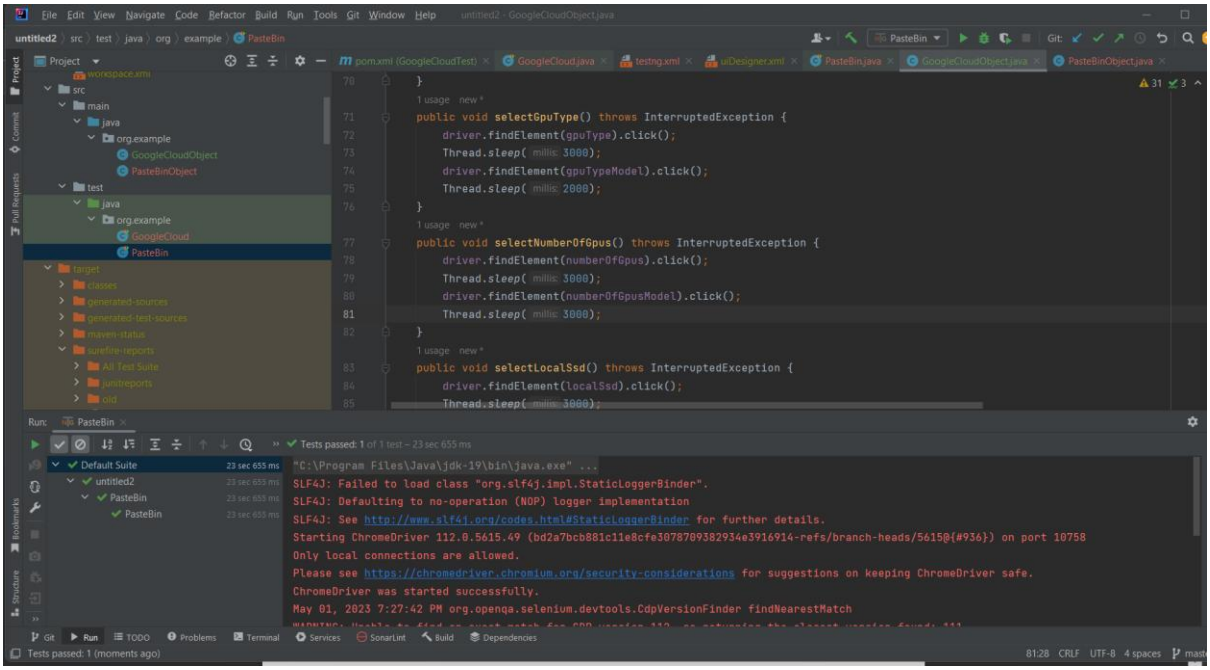
a. I can win (mandatory) For this task, please, use the Selenium WebDriver power, framework unit test, and Page Object concepts. Automate the following script:

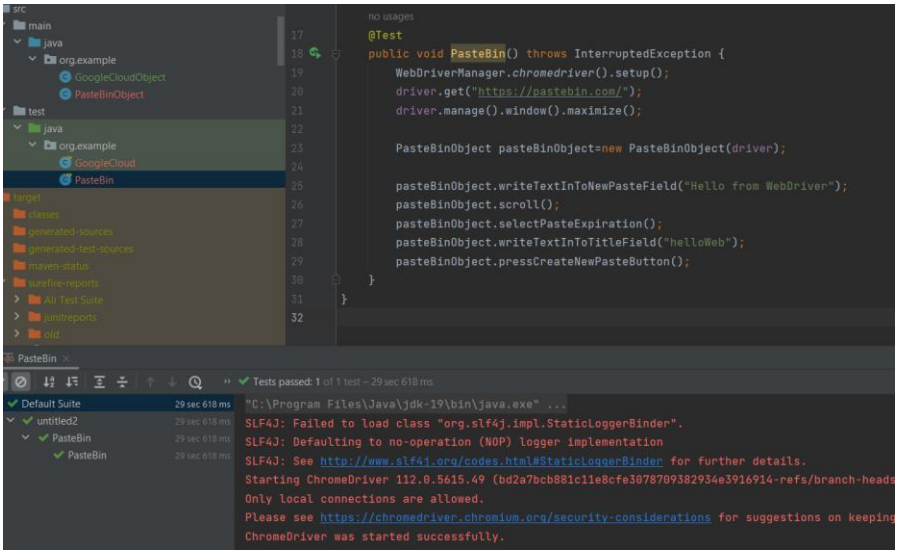
1. Open https://pastebin.com/ or a similar service in any browser.

2. Create 'New Paste' with the following attributes: - Code: "Hello from WebDriver" - Paste Expiration: "10 Minutes" - Paste Name / Title: "helloweb"




helloWeb - Pastebin.com
pastebin.com/ZP99erRk
Chrome is being controlled by automated test software.
PASTEBIN
API
TOOLS
FAQ
paste
LOGIN
SIGN UP
helloWeb
A GUEST MAY 1ST, 2023 1 0 10 MIN ADD COMMENT
SHARE
TWEET
NOTE: Your guest paste has been posted. If you sign up for a free account, you can edit and delete your pastes!
text 0.02 KB | None | 0 0
raw download clone embed print report
1. Hello from WebDriver
Add Comment
Please, Sign In to add comment
Public Pastes
BTC Wallet Credentials have been reset
GetText | 26 sec ago | 0.24 KB
Password
C++ | 15 min ago | 0.94 KB
News May1 23
Email | 22 min ago | 23.42 KB
Bus Station
C++ | 41 min ago | 0.91 KB
JavaScript | 1 hour ago | 6.87 KB
Eleven_Gateway_controler_V1
Lua | 1 hour ago | 1.36 KB
Untitled
C++ | 1 hour ago | 0.45 KB
Untitled
C++ | 1 hour ago | 0.38 KB
iOS
create new paste / syntax languages / archive / faq / tools / night mode / api / scraping api / news / pro
privacy statement / cookies policy / terms of service updated / security disclosure / dmca / report abuse / contact
By using Pastebin.com you agree to our cookies policy to enhance your experience.
Site design & logo © 2023 Pastebin
We use cookies for various purposes including analytic
continuing to use Pastebin, you agree to our use of co
described in the Cookies Policy.
OK, I Understand
Not a member of Pastebin yet?
Sign Up, it unlocks many cool feature


File Edit View Navigate Code Refactor Build Run Tools Git Window Help
untitled2 - GoogleCloudObject.java
untitled2 src test java org example PasteBin
Project
pom.xml (GoogleCloudTest)
GoogleCloud.java
testng.xml
uiDesigner.xml
PasteBin.java
GoogleCloudObject.java
PasteBinObject.java
public void selectGpuType() throws InterruptedException {
driver.findElement(gpuType).click();
Thread.sleep(millis: 3000);
driver.findElement(gpuTypeModel).click();
Thread.sleep(millis: 2000);
}
public void selectNumberOfGpus() throws InterruptedException {
driver.findElement(numberOfGpus).click();
Thread.sleep(millis: 3000);
driver.findElement(numberOfGpusModel).click();
Thread.sleep(millis: 3000);
}
public void selectLocalSsd() throws InterruptedException {
driver.findElement(localSsd).click();
Thread.sleep(millis: 3000);
Run: PasteBin
Tests passed: 1 of 1 test – 23 sec 655 ms
Default Suite 23 sec 655 ms
untitled2 23 sec 655 ms
PasteBin 23 sec 655 ms
PasteBin 23 sec 655 ms
"C:\Program Files\Java\jdk-19\bin\java.exe" ...
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
Starting ChromeDriver 112.0.5615.49 (bd2a7bcb881c11e8cfe3078709382934e3916914-refs/branch-heads/5615@{#936}) on port 10758
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
May 01, 2023 7:27:42 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
Git Run TODO Problems Terminal Services SonarLint Build Dependencies
Tests passed: 1 (moments ago)
81:28 CRLF UTF-8 4 spaces



This is a Java class named "PasteBin" that uses the Selenium WebDriver library to automate interactions with the "https://pastebin.com/" website. The class contains a single test method called "PasteBin" that is annotated with "@Test".

The "@Test" annotation tells the TestNG testing framework that this is a test method that needs to be executed.

The test method starts by setting up the WebDriver using WebDriverManager to download and set up the ChromeDriver executable. Then it opens the "https://pastebin.com/" website and maximizes the browser window.

It then creates an instance of the "PasteBinObject" class passing in the WebDriver instance. The "PasteBinObject" class is a custom class that contains methods to interact with the various elements on the "https://pastebin.com/" page.

The test method then calls various methods on the "PasteBinObject" instance to automate interactions with the website. These methods include:

1) Writing text into the new paste field

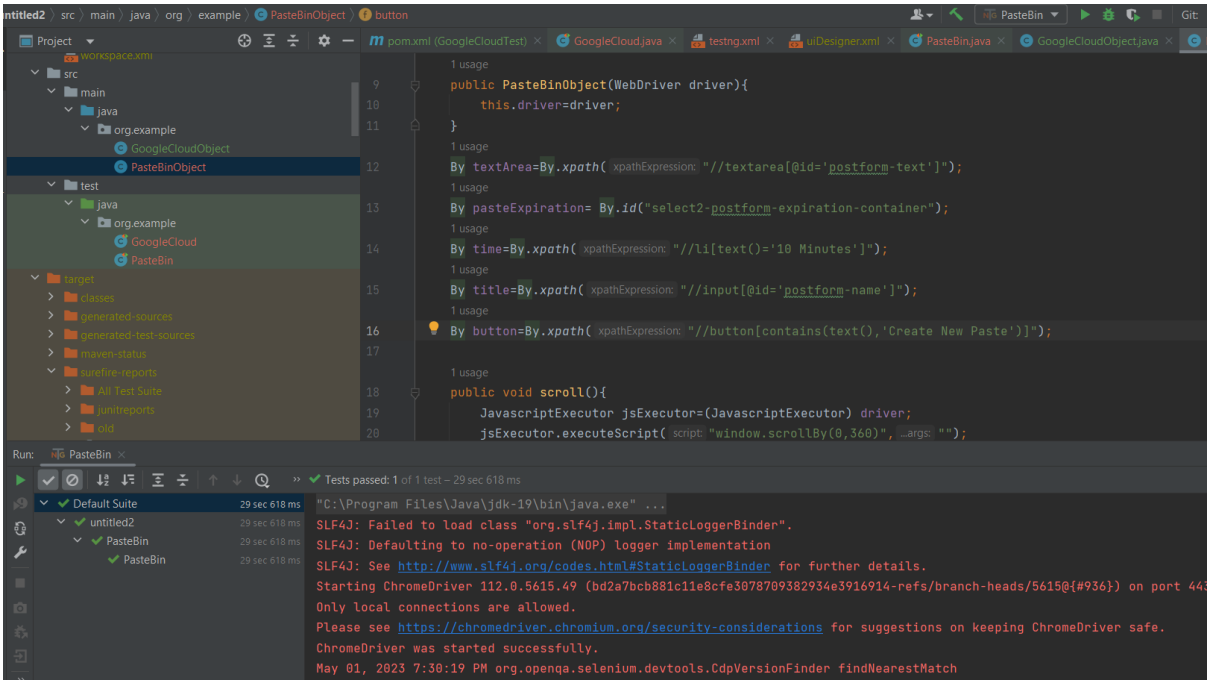
2) Scrolling down the page

3)Selecting the paste expiration duration

4)Writing text into the paste title field

5)Pressing the "Create New Paste" button

Finally, the test method ends and the TestNG framework takes care of closing the browser and cleaning up any resources used by the test.



This is a Java class named "PasteBinObject" that contains methods to interact with various elements on the "https://pastebin.com/" website. The class takes a WebDriver instance in its constructor, which is used to automate interactions with the website.

The class defines instance variables for various locators (By objects) of elements on the website, including:

The class has several methods that correspond to user actions on the website. These include:

1) "scroll" method that uses a JavascriptExecutor to scroll the page down

2) "writeTextInToNewPasteField" method that enters text into the paste content text area

3) "selectPasteExpiration" method that selects the "10 Minutes" option in the paste expiration dropdown

4) "writeTextInToTitleField" method that enters text into the paste title field

5) "pressCreateNewPasteButton" method that clicks the "Create New Paste" button

b. Hurt Me Plenty (mandatory) For this task, please, use the Selenium WebDriver power, framework unit test, and Page Object concepts. Automate the following script:

1. Open https://cloud.google.com/.

2. Click the search button at the top of the portal page and enter "Google Cloud Platform Pricing

3. Calculator" into the search field.

4. Click on the search button to start searching.

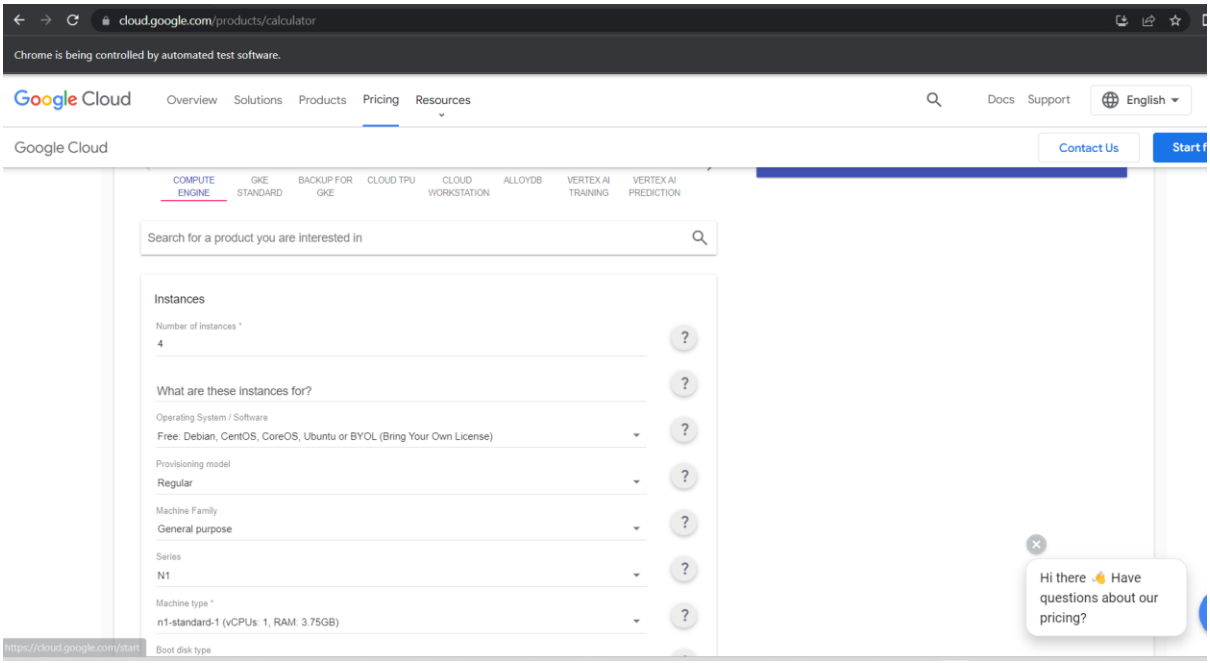
5. Click "Google Cloud Platform Pricing Calculator" in the search results and go to the calculator page. 6. Click COMPUTE ENGINE at the top of the page.

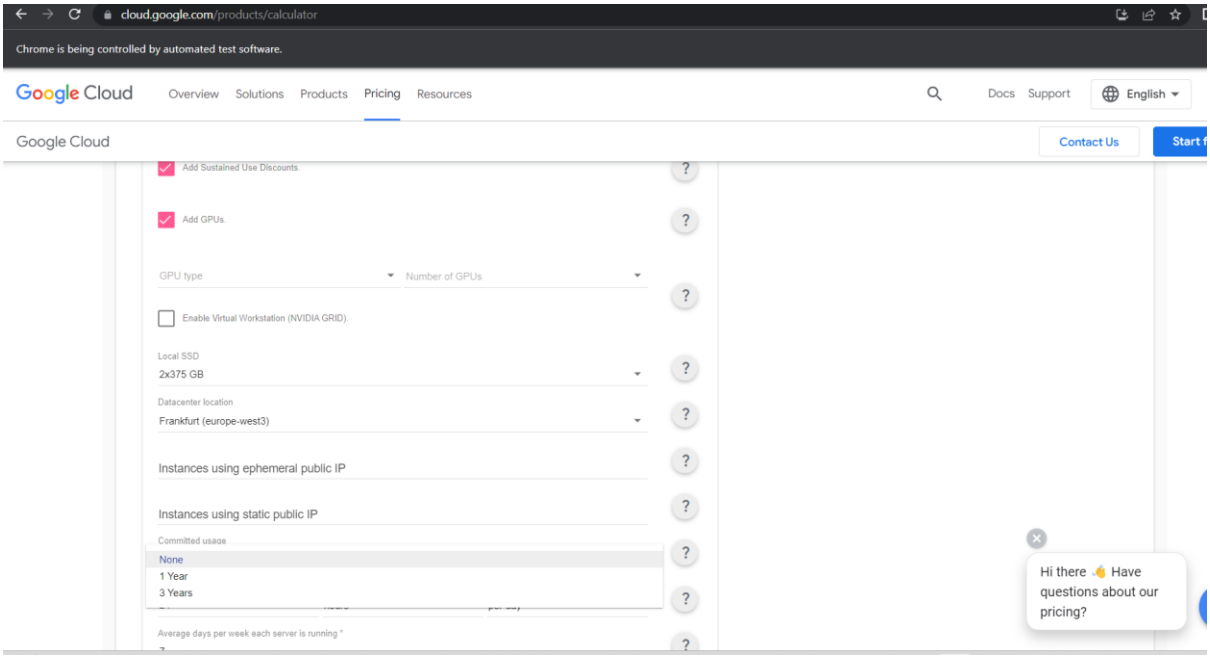
6. Fill out the form with the following data: - Number of instances: 4 - What are these instances for?: leave blank - Operating System / Software: Free: Debian, CentOS, CoreOS, Ubuntu, or another User-Provided OS - VM Class: Regular - Instance type: n1-standard-8 (vCPUs: 8, RAM: 30 GB) - Select “Add GPUs” - Number of GPUs: 1 - GPU type: NVIDIA Tesla V100 - Local SSD: 2x375 Gb - Datacenter location: Frankfurt (europe-west3) - Committed usage: 1 Year

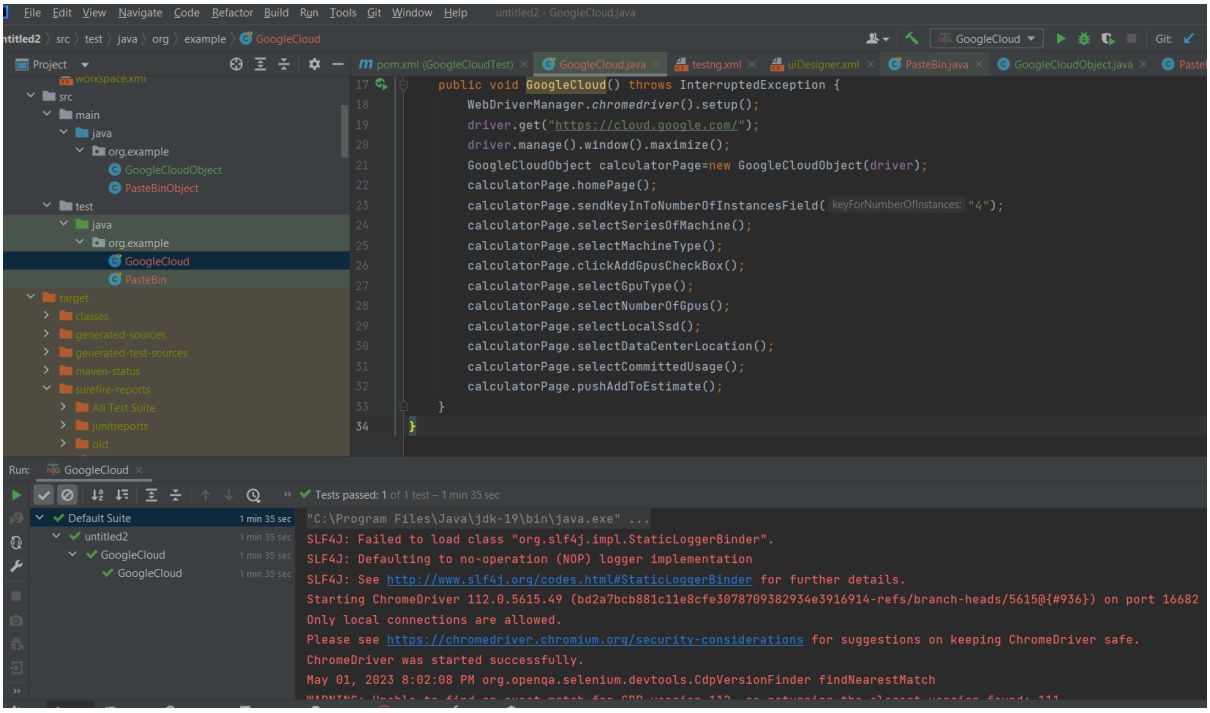
7. Click Add to Estimate.

8. Check that the data is correct in the following fields: VM Class, Instance type, Region, local SSD, commitment term.

9. Check that the monthly rent matches the amount received when the test is done manually


cloud.google.com/products/calculator
Chrome is being controlled by automated test software.
Google Cloud
Overview
Solutions
Products
Pricing
Resources
Docs
Support
English
Google Cloud
Contact Us
COMPUTE ENGINE
GKE STANDARD
BACKUP FOR GKE
CLOUD TPU
CLOUD WORKSTATION
ALLOYDB
VERTEX AI TRAINING
VERTEX AI PREDICTION
Search for a product you are interested in
Instances
Number of instances *
4
What are these instances for?
Operating System / Software
Free: Debian, CentOS, CoreOS, Ubuntu or BYOL (Bring Your Own License)
Provisioning model
Regular
Machine Family
General purpose
Series
N1
Machine type *
n1-standard-1 (vCPUs: 1, RAM: 3.75GB)
Boot disk type
https://cloud.google.com/start
Hi there 👋 Have questions about our pricing?


cloud.google.com/products/calculator
Chrome is being controlled by automated test software.
Google Cloud
Overview
Solutions
Products
Pricing
Resources
Docs
Support
English
Google Cloud
Contact Us
Add Sustained Use Discounts
Add GPUs
GPU type
Number of GPUs
Enable Virtual Workstation (NVIDIA GRID)
Local SSD
2x375 GB
Datacenter location
Frankfurt (europe-west3)
Instances using ephemeral public IP
Instances using static public IP
Committed usage
None
1 Year
3 Years
Average days per week each server is running *
Hi there 👋 Have questions about our pricing?



The method then calls several methods on the "GoogleCloudObject" instance to interact with various elements on the pricing calculator page, including:

1)Entering a value of "4" into the "Number of instances" field

2)Selecting a machine series

3)Selecting a machine type

4)Clicking the "Add GPUs" checkbox

5)Selecting a GPU type

6)Selecting the number of GPUs

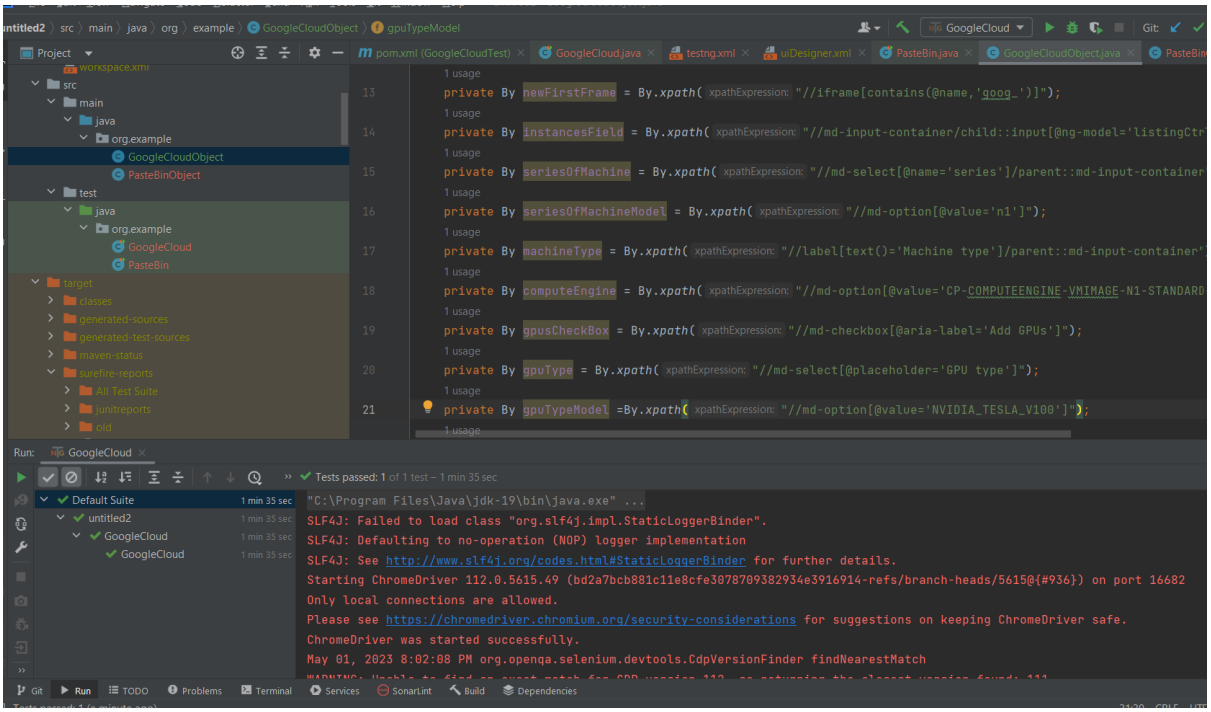
7)Selecting a local SSD size

8)Selecting a data center location

9)Selecting a committed usage plan

10)method calls the "pushAddToEstimate" method to submit the form and get an estimate of the cost.

Overall, this test method tests the functionality of the Google Cloud pricing calculator by entering various values into the form and verifying that the estimate is calculated correctly.



This Java class contains a series of methods that interact with a web page representing the Google Cloud Platform Pricing Calculator. The purpose of the class is to automate the process of filling out the calculator form with specific parameters and then extracting specific pieces of information from the resulting estimate.

The class uses the Selenium WebDriver library to interact with the web page, locating and interacting with specific HTML elements using XPath expressions. The methods in the class perform actions such as entering values into input fields, clicking checkboxes and select elements, and extracting text from specific elements on the page.

1)Entering a search term into a search field and submitting the form

2)Switching to an iframe to interact with an input field on the page

3)Selecting options from dropdown menus for series of machine, machine type, GPU type, number of GPUs, local SSD, datacenter location, and committed usage

4)Clicking a checkbox to add GPUs to the machine configuration

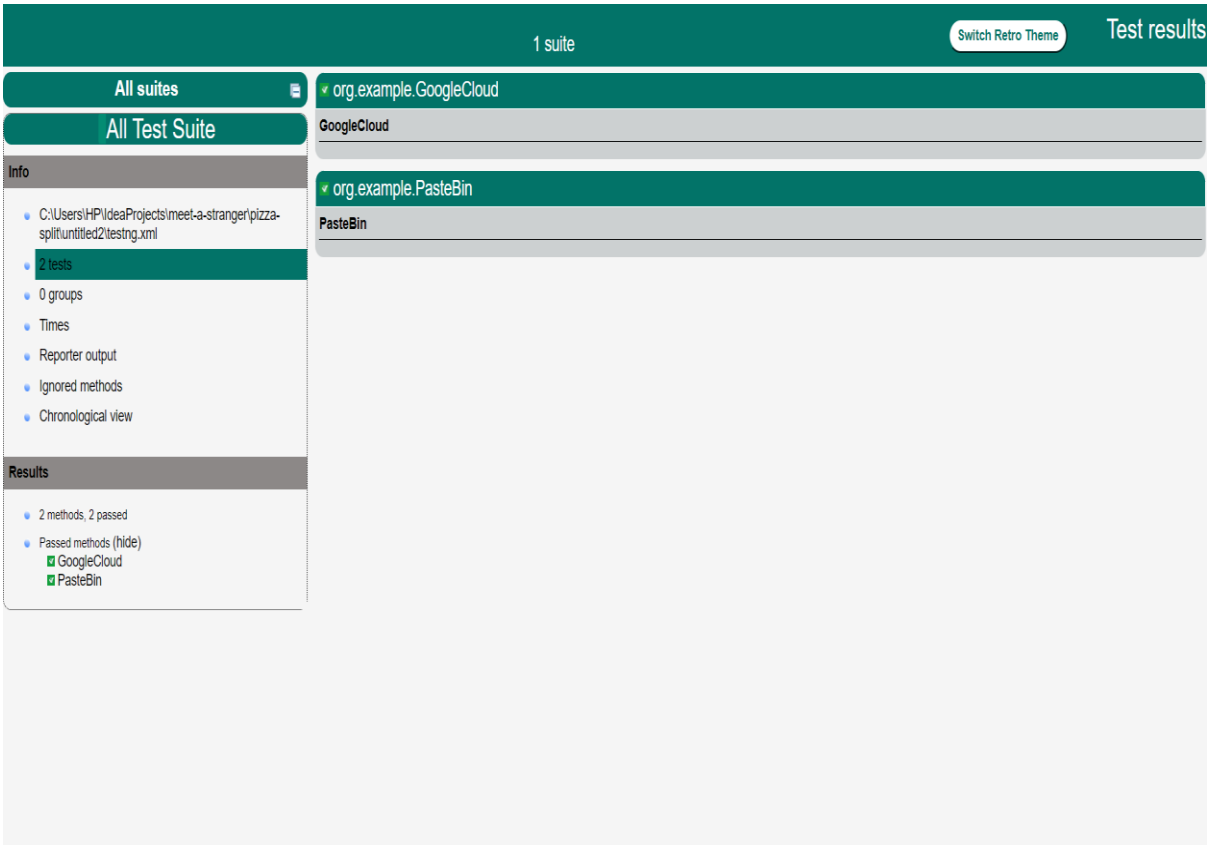
5)Extracting specific pieces of information from the resulting estimate, such as the VM class, instance type, region, local SSD space, and commitment term.

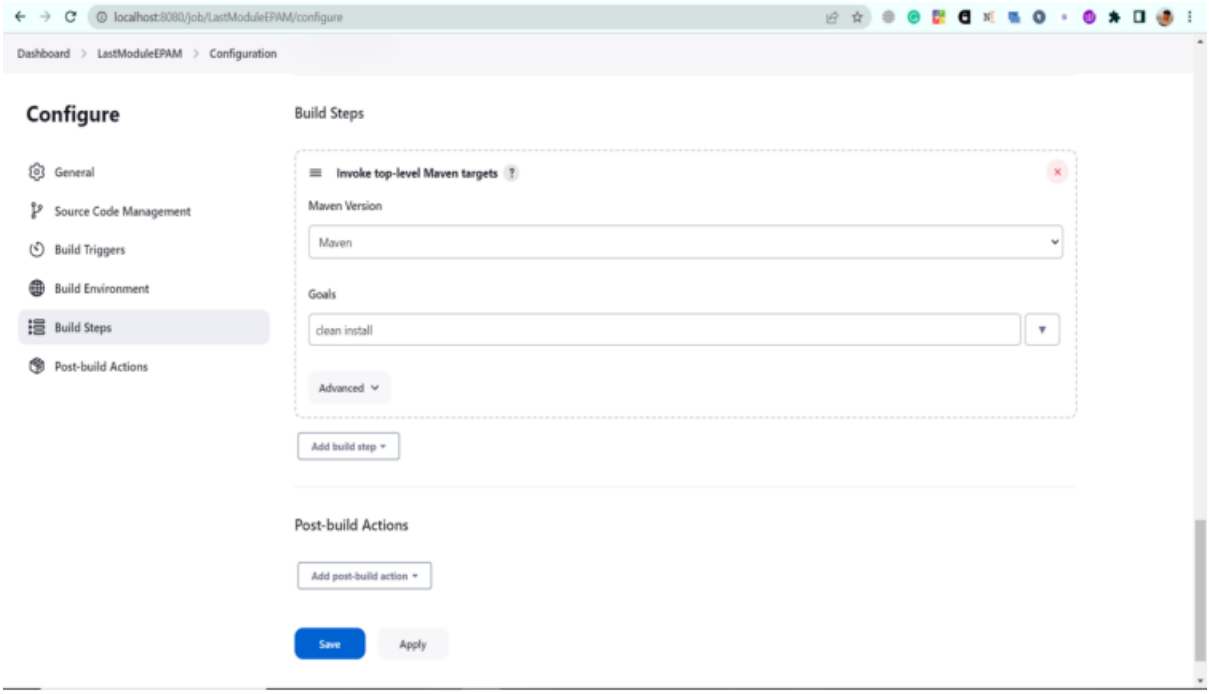
. Module Continuous Integration with Jenkins Practical tasks: I can win (mandatory)

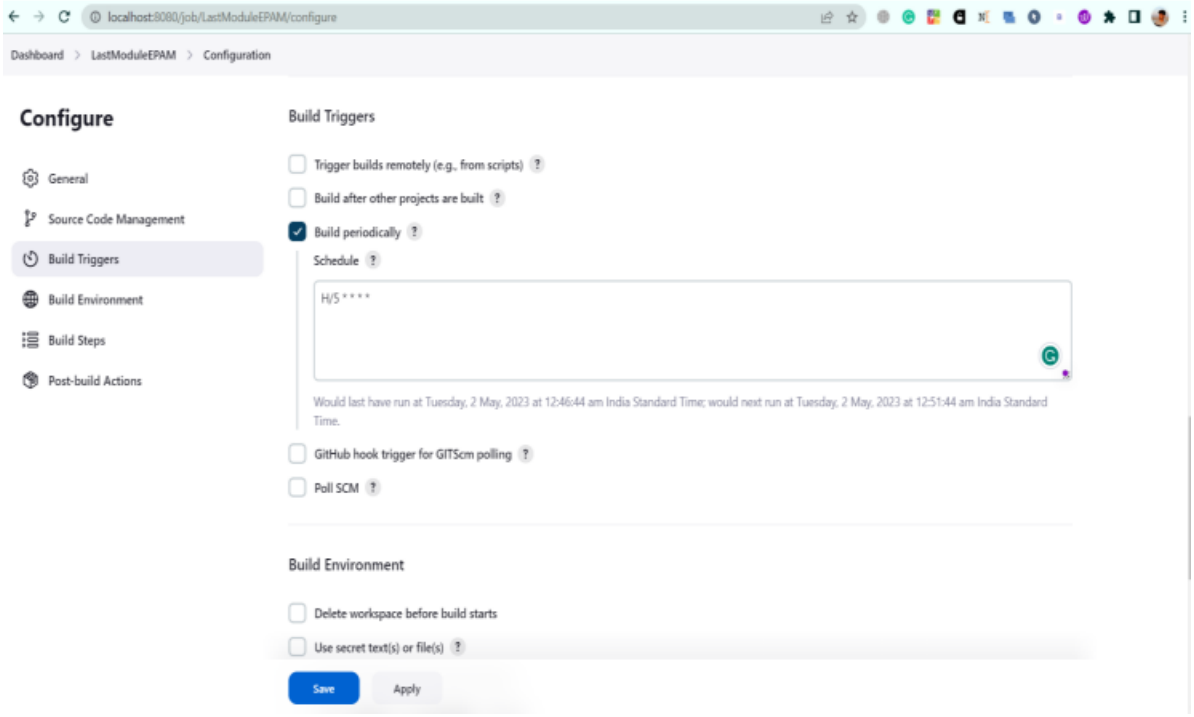
1. Install Jenkins

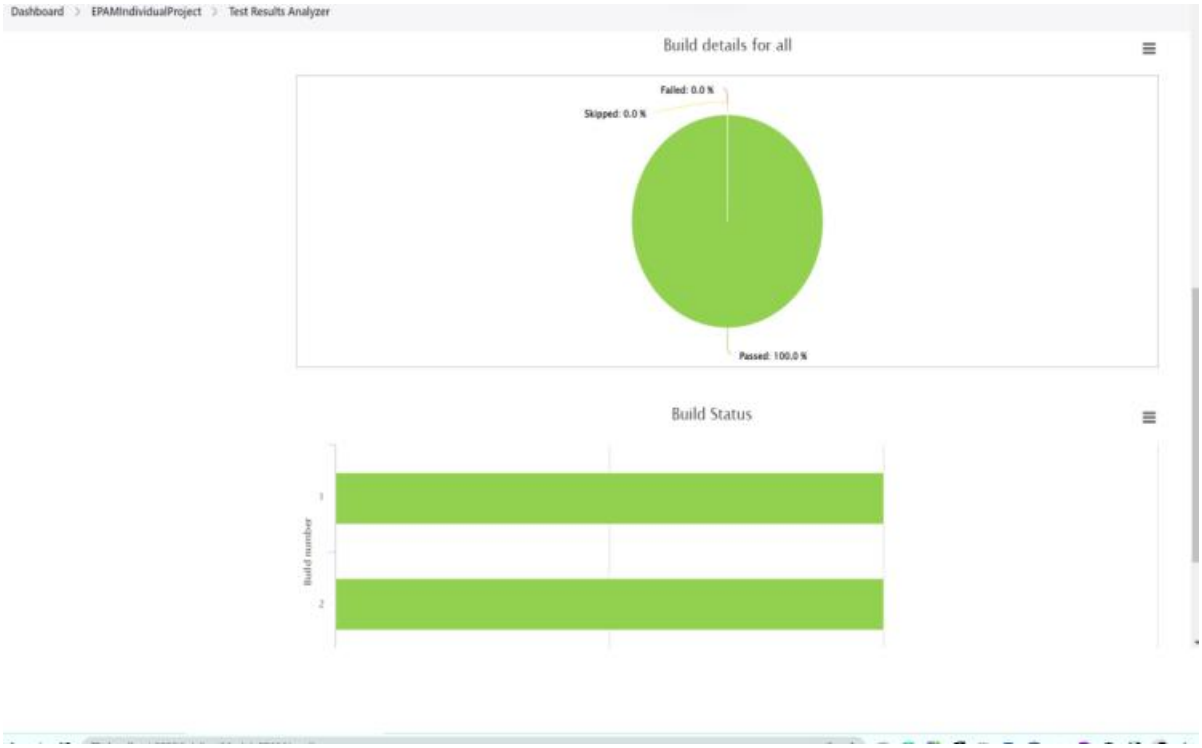
2. Create a task which will perform the following: - Clone the project (https://github.com/vitalliuss/helloci) - Launch tests from the project in Java directory with the help of mvn test goal

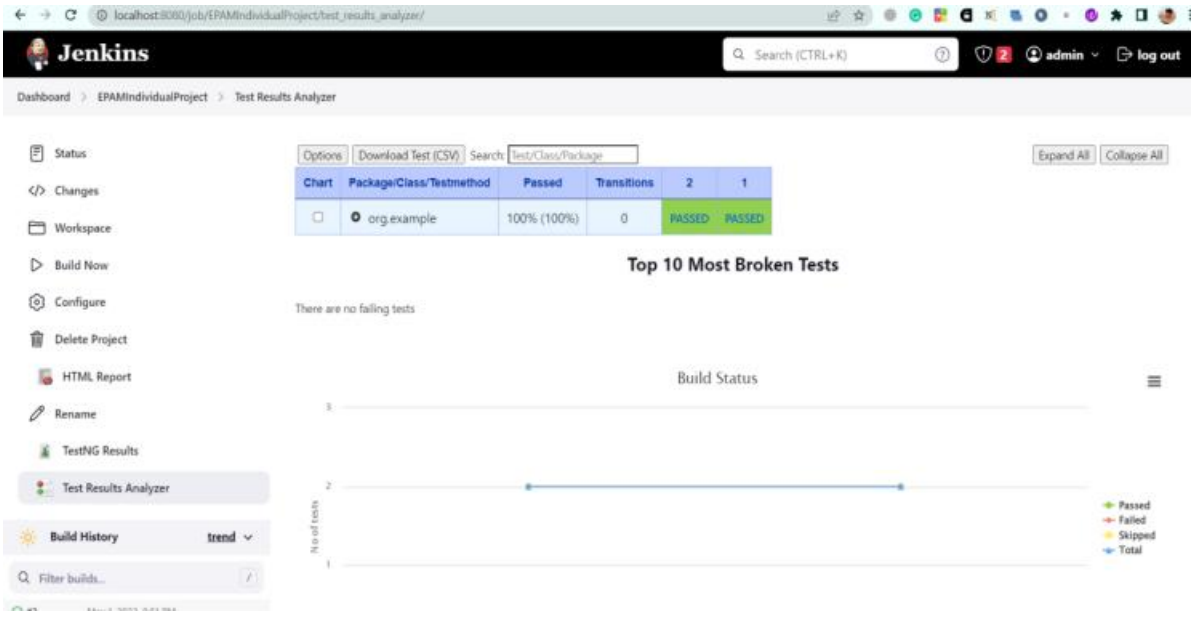
3. Set up build triggers so that the task is performed every 5 minutes




localhost:8080/job/LastModuleEPAM/configure
Dashboard > LastModuleEPAM > Configuration
Configure
General
Source Code Management
Build Triggers
Build Environment
Build Steps
Post-build Actions
Build Steps
Invoke top-level Maven targets
Maven Version
Maven
Goals
clean install
Advanced
Add build step
Post-build Actions
Add post-build action
Save
Apply


localhost:8080/job/LastModuleEPAM/configure
Dashboard > LastModuleEPAM > Configuration
Configure
General
Source Code Management
Build Triggers
Build Environment
Build Steps
Post-build Actions
Build Triggers
Trigger builds remotely (e.g., from scripts)
Build after other projects are built
Build periodically
Schedule
H/5 * * * *
Would last have run at Tuesday, 2 May, 2023 at 12:46:44 am India Standard Time; would next run at Tuesday, 2 May, 2023 at 12:51:44 am India Standard Time.
GitHub hook trigger for GITScm polling
Poll SCM
Build Environment
Delete workspace before build starts
Use secret text(s) or file(s)
Save
Apply


Dashboard > EPAMIndividualProject > Test Results Analyzer
Build details for all
Failed: 0.0 %
Skipped: 0.0 %
Passed: 100.0 %
Build Status
Build number
1
2


Jenkins
Search (CTRL+K)
admin
log out
Dashboard > EPAMIndividualProject > Test Results Analyzer
Status
Changes
Workspace
Build Now
Configure
Delete Project
HTML Report
Rename
TestNG Results
Test Results Analyzer
Build History
trend
Filter builds...
Options
Download Test (CSV)
Search:
Test/Class/Package
Expand All
Collapse All
Chart
Package/Class/Testmethod
Passed
Transitions
2
1
org.example
100% (100%)
0
PASSED
PASSED
Top 10 Most Broken Tests
There are no failing tests
Build Status
No of tests
Passed
Failed
Skipped
Total

CONCLUSION

The Maven practical task and subsequent tasks exhibit a firm grasp of the Maven build tool and efficient usage. By downloading a test project, updating junit versions, and adding the new library version to the repository, the tasks demonstrate competence in managing dependencies and building projects with Maven.

In the Webdriver module's practical tasks, there is a solid understanding of Selenium WebDriver, framework unit tests, and Page Object concepts. The "I can win" task automates the creation of a new paste on a service like Pastebin with specific attributes, while the "Hurt Me Plenty" task automates the use of the Google Cloud Platform Pricing Calculator with specific parameters. These tasks reflect proficiency in the Page Object model and the ability to create efficient and maintainable code.

The successful completion of the Framework practical task requires the development of a robust automation framework for the "Hurt Me Plenty" task. This framework comprises a WebDriver manager for managing browser connections, page abstractions using Page Object/Page Factory, models for business objects of the required elements, and property files with test data for at least two different environments. Additionally, the framework includes XML suites for smoke tests and other tests, screenshot capture when a test fails, and the ability to run with Jenkins, parameterize browsers, test suites, and environments.

The Bewakoof website test involves testing various functionalities such as login, existing user,addtocart,addtowishlist,paymentemthod. The test showcases expertise in using Selenium WebDriver, TestNG, and Page Object pattern to automate various tasks and ensure that the application meets the necessary requirements.

Overall, the completion of these tasks and the successful execution of the Bewakoof website indicate a solid understanding of technologies like Maven, Selenium WebDriver, TestNG, Jenkins, and Page Object pattern. These skills are crucial for developing and maintaining robust automation frameworks and ensuring that web applications function as expected.