OOP CONCEPTS IN PHP PDF WORDPRESS

Download Complete File

What are the concepts of OOP in WordPress? Object-oriented programming has two important concepts: Classes and Objects. Classes are essentially templates used to make objects. Each object has its own methods and set of properties and the value of those properties may vary.

What is OOP concepts in PHP? PHP is a server-side scripting language, mainly used for web development but also used as a general-purpose programming language. Object-Oriented Programming (PHP OOP), is a type of programming language principle added to php5, that helps in building complex, reusable web applications.

Can PHP use OOP? Starting with PHP 5, the language offered full-fledged OOP support, allowing developers to create classes, methods, and properties that are essential for OOP. PHP's OOP features enable you to build scalable and secure web applications by encapsulating related logic into objects.

What are WordPress objects? If you are looking for website optimization options, consider utilizing an object cache. A WordPress website consists of many PHP objects that are constantly built, initiated, and removed by the memory manager. However, these actions may overload your server, causing your site to slow down and experience errors.

What are the 4 key concepts of OOP? OOP allows objects to interact with each other using four basic principles: encapsulation, inheritance, polymorphism, and abstraction. These four OOP principles enable objects to communicate and collaborate to create powerful applications.

What are the 3 basic concepts of OOPs? There are three major pillars on which object-oriented programming relies: encapsulation, inheritance, and polymorphism. Phew! Even writing that makes my head spin. Students of programming hear these terms, and learn lots of ways to use them in their programming, but sometimes struggle to understand what is what.

Should I use OOP in PHP? OOP helps to keep the PHP code DRY "Don't Repeat Yourself", and makes the code easier to maintain, modify and debug. OOP makes it possible to create full reusable applications with less code and shorter development time.

How to create an OOP in PHP? The Syntax for Creating an Object in PHP: // define a classclass class_name { // declare data members // and define member functions...}// creating objects of the class// named class_name using the// "new" keyword.

What are the 4 pillars of PHP? Each object has its own set of properties and can invoke the methods defined in the class. The Four pillars of OOPs are abstraction, encapsulation, inheritance, and polymorphism, We will discuss those concepts in details with real time example.

Is PHP functional or OOP? Declarative coding As you know, the more popular models used today in PHP are procedural and object-oriented, both imperative paradigms. For instance, sites built using older versions of Wordpress or Moodle are heavily procedural; whereas, sites built using Laravel are completely OOP.

Is PHP procedural or OOP? In fact, PHP was initially developed as a procedural language and only later extended to OOP. PHP programmers cannot agree on which style is preferable.

Is PHP front-end or backend? PHP is one of the backend languages known as the scripting language. When a PHP page is requested, the server parses the PHP code, which in most cases results in dynamically created HTML.

What is the difference between class and object in WordPress? As we described in our OOP Overview article, a class is basically a template that we use to create individual instances of the class, called objects. An object contains data and

code. We still have variables that can store information, called properties. And procedures that operate on the data, called methods.

What are the three main types of content in WordPress? The most important types of content you can create and display in your WordPress are Users (wp_users), Post Types (wp_posts), and Comments (wp_comments).

What is advanced cache in PHP? The advanced-cache. php file is used by most of the caching plugins to store information about full-page caching. Basically, its purpose is to check if the cache is valid, when, and which cache is to be served. The file is still being used by the SG Optimizer plugin.

What are the 4 pillars of OOP? What are the 4 pillars of OOP? The four pillars of OOPS (object-oriented programming) are Inheritance, Polymorphism, Encapsulation and Data Abstraction.

How to understand OOP? Object-oriented programming is based on the concept of objects. In object-oriented programming data structures, or objects are defined, each with its own properties or attributes. Each object can also contain its own procedures or methods. Software is designed by using objects that interact with one another.

What are the most important OOP concepts? The main ideas behind Java's Object-Oriented Programming, OOP concepts include abstraction, encapsulation, inheritance and polymorphism.

What is the oops concept in PHP? Object-oriented programming in PHP helps developers build reusable and complex web applications. Object-oriented programming is a programming style that refers to the association of various components and revolves around the inheritance, polymorphism, encapsulation, and abstraction concepts.

What is OOP with example? In basic terms, OOP is a programming pattern that is built around objects or entities, so it's called object-oriented programming. To better understand the concept, let's have a look at commonly used software programs: A good example to explain this would be the use of a printer when you are printing a document.

What is the difference between OOP and pop? OOP is a fundamental programming concept that developer uses for binding data and functions together using the concept of object and class, whereas POP it is a step-by-step approach to decomposing a task into a set of variables and routines using a set of instructions.

What is the basic concept of WordPress? WordPress is an open-source content management system (CMS). It's a popular tool for individuals without any coding experience who want to build websites and blogs. The software doesn't cost anything. Anyone can install, use, and modify it for free.

What is OOP in web development? Object-oriented programming (OOP) is a computer programming model that organizes software design around data, or objects, rather than functions and logic. An object can be defined as a data field that has unique attributes and behavior.

What are the OOPs concepts used? The main principles of OOPs in Java are encapsulation, inheritance, polymorphism, and abstraction. Encapsulation ensures that the internal state of an object is hidden and can only be accessed through public methods.

What are the 5 concepts of OOP in Java? Abstraction, encapsulation, polymorphism, and inheritance are the four main theoretical principles of object-oriented programming. But Java also works with three further OOP concepts: association, aggregation, and composition.

Secrets of the Pelvis for Martial Arts: A Practical Guide

The pelvis is a crucial area of the body that plays a vital role in martial arts such as wujifa, taiji, xingyi, and bagua. Understanding and mastering its secrets can significantly enhance your technique, power, and overall well-being.

Q: Why is the pelvis so important in martial arts? A: The pelvis is the center of gravity and the primary source of power for the lower body. It connects the upper and lower body, allowing for coordinated movement and the generation of explosive force.

Q: What are the key principles of pelvic movement in martial arts? A: Pelvic movement should be relaxed, flexible, and fluid. It involves rotating, tilting, and shifting the pelvis to create a stable base, generate power, and evade attacks.

Q: How can I improve my pelvic alignment and movement? A: Practice exercises such as pelvic circles, pelvic tilts, and hip bridges to enhance flexibility and control. Focus on keeping your pelvis level and stable, and on coordinating its movement with your upper and lower body.

Q: How do the secrets of the pelvis benefit martial arts practitioners? A: By mastering pelvic movement, practitioners can improve their rooting, stability, and mobility. This enhances their ability to execute techniques with precision, power, and fluidity. It also reduces the risk of injuries and promotes overall well-being.

Q: How can I apply the secrets of the pelvis to everyday life? A: The principles of pelvic movement can benefit your daily activities as well. Improved pelvic alignment can reduce back pain, improve posture, and enhance coordination. By integrating these secrets into your everyday life, you can experience greater vitality, mobility, and a sense of balance.

How do I identify my Isuzu engine? All serial numbers are stamped and consist of six numerical digits. Engine Model is cast on the side of the block and/or located on the identification label, which is found on the valve cover.

What are genuine Isuzu engine parts? Isuzu Genuine Parts are OEM replacements for Isuzu truck needs. Using Isuzu Genuine Parts helps to minimize down time by using parts specifically developed for the Isuzu truck product line. Isuzu Genuine Parts are supplied only through authorized Isuzu truck dealerships.

Who makes engines for Isuzu? Isuzu has used both its own engines and General Motors-built engines.

Where is the engine number on a Isuzu N Series? The engine data plate on a Isuzu engine can be found on or near the valve cover, located at the top of the engine. If you can't read the tag on the valve cover or if it is missing, you can always find the number stamped in the block.

Where can I find engine details? You can easily find out what kind of engine is in your car by checking the VIN, which can be seen in the owner's manual or under the hood. The VIN can also be found on the front of the driver's side dashboard in most cases.

Where do I find the engine model? The model number will be 11-12 characters long and can be found in one of many locations, including: by the starter, on the cylinder shield, on the metal shield, on the valve cover, above the spark plug, in front of the engine, above the muffler, or on the fuel tank.

Is Isuzu made by GM? Although Isuzu has partnered with many different manufacturers over the years—including GM, Toyota, and Subaru at various times—the company is best described as an independent business venture, rather than a subsidiary of another company.

What is the most reliable Isuzu engine? The Isuzu 4J 3.0L (52-84 kW) engine has always been reliable, eco-friendly, durable, and technologically advanced. The same qualities that make the best Power Units.

What is the life expectancy of the Isuzu engine? The rating means that 90% of Isuzu 4HK1-TC engines are expected to last 375,000 miles before they require a major repair or rebuild. Previously, the 4HK1-TC engine carried a B10 rating of 310,000 miles.

Why did Isuzu fail in the US? Isuzu sales began to slide due to the aging of the Rodeo and Trooper, and poor management and a lack of assistance from GM.

Do Isuzu make good engines? Isuzu diesel engines are renowned for their robust construction and durability. Crafted with precision and engineered with cutting-edge technology, these engines boast a remarkable lifespan that surpasses industry standards.

Does Isuzu use Cummins engine? Cummins Inc. and Japan-based truck manufacturer Isuzu Motors Limited are launching a 6.7L engine jointly developed by the two companies and designed for use in Isuzu's new medium-duty truck lineup. The companies unveiled the Isuzu DB6A six-cylinder turbo-diesel engine - derived from the Cummins B6.

How much HP does a 4jj1 have? Power Output: 139 kW / 186.4 hp (rated) @ 2600 RPM.

Where do I find engine code? The most common place to find the engine code is on the cylinder block or on the timing cover gasket. The engine code is often stamped on the engine itself and is corresponding with the VIN number. If you know the engine code, you can easily find the corresponding engine parts on our website.

What is the 4 digit of engine number? The first digit is the details of where the car was manufactured, while the second and third digits show details about the manufacturer. Digits four through eight showcase details of the car's brand, engine type, engine capacity and fuel type.

How to check engine code? The engine code letters and the consecutive engine number are always on the engine, although they are not necessarily visible to you, but are stamped into the block and are usually difficult to read. The code is therefore often written on a sticker (the vehicle data carrier), which is attached to the timing belt cover.

Can I find engine number from VIN? Can my VIN number tell me what engine I have? Yes. Characters 4-8 on a given VIN denotes the vehicle's manufacturer, engine size, and type. To learn more about a particular VIN, enter it here.

How much do engine details cost? The average cost of a complete exterior detail is $150. However, you may charge $75 or more extra for engine detail.

How can I tell what type of engine I have? The most common way to find out what type of engine your vehicle has is to check your Vehicle Identification Number (VIN). It will likely be located on a stamp on the bottom of your passenger side windscreen and it is a 17 character code including numbers and letters.

What model is my motor? Locate your car's VIN, which is usually on the front window or in the driver's side door jamb. Run the VIN through a free online VIN decoder to find out what type of engine your car has.

What is the engine model code? The letters and numbers that make up an engine's model number are a series of codes to tell you the engine family, the

number of cylinders, the emissions standard, the type of ignition, the capacity, the type of aspiration and the generator set rating.

How do you identify an engine by the serial number? Engine Serial Number Search Your serial number is located on your engine plate, often located on the left-hand side of the engine. Typically the first letters and numbers will identify the engine, for example, DJ51279, to find all the parts we have online for your engine.

What model engine is in my truck? You can find it in the lower corner of your windshield on the driver's side. Your VIN code is your vehicle identification number, and you can find your engine size by VIN. In the series of numbers and letters, the tenth from the left denotes the model year, and the eighth is the engine codes.

How do I decode an Isuzu VIN number?

How do I identify my diesel engine? Typically, engine serial numbers can be located on a metal plate that is securely attached to the engine block. The combination of letters and numbers forming an engine's model number comprises a sequence of codes that provide valuable information about the engine's characteristics.

How to check engine number? An engine number is a unique identification number assigned to each engine of a vehicle. You can generally find the engine number embossed on the engine block. You can also check your vehicle's registration certificate, insurance policy, or ownership manual provided by the car dealership for the engine number.

How to find engine code from VIN? Can my VIN number tell me what engine I have? Yes. Characters 4-8 on a given VIN denotes the vehicle's manufacturer, engine size, and type.

What does the engine type code tell you about an engine? The letters and numbers that make up an engine's model number are a series of codes to tell you the engine family, the number of cylinders, the emissions standard, the type of ignition, the capacity, the type of aspiration and the generator set rating.

What model is my motor? Locate your car's VIN, which is usually on the front window or in the driver's side door jamb. Run the VIN through a free online VIN

decoder to find out what type of engine your car has.

Can I use my VIN number to find parts? Your VIN provides a host of details about your vehicle that you may not even be aware of, and information such as the year, make, model, submodel, and engine codes can be especially important in finding the right parts for your repairs.

What size engine is this? The easiest way to check your engine size is to consult your owner's manual – it should be listed in several places, including 'Specifications' or 'Mechanical Information'. Alternatively, your car's VIN (located on the driver's side of the dashboard) contains the relevant information.

Which digit of the VIN decodes the engine option? The second character denote the manufacturer. The third character tells you the vehicle type or division. The fourth through the eighth characters tell you the vehicle brand, body style, engine size and type, model, and series.

How do I find the model of my Isuzu truck?

Where is the VIN number on a Isuzu truck?

What model engine do I have? The engine type code is stamped into the side of the engine, usually close to the serial number. Engine type codes may be up to 4 characters. If a code is less than 4 characters, you may see asterisks as placeholders (i.e. an engine stamped with QX** is a QX type engine.)

How to look up engine serial numbers? Also, check for a label under the hood or in the engine compartment that lists the engine serial number. Heavy Equipment Engines: Check for either a plate near the starter, the engine block by the flywheel, or under the engine access panel. Again, refer to the manual or manufacturer's website for exact locations.

How do I find my engine family? The engine family name is usually listed on the engine label, as shown below. As shown in the top right picture, it may be stamped into the label, which may make the family name difficult to read. However, the engine label may also list the manufacturer's production family of engines, as shown in the example below.

OOP CONCEPTS IN PHP PDF WORDPRESS

What is immunity and infection? The immune system is a complex network of organs, cells and proteins that defends the body against infection, whilst protecting the body's own cells. The immune system keeps a record of every germ (microbe) it has ever defeated so it can recognise and destroy the microbe quickly if it enters the body again.

What is immunology and infection? This program, offered jointly by the Faculty of Science and the Faculty of Medicine, focuses on infectious diseases from both the pathogen and host immune system perspectives. Immunology & Infection is available in both honors degree and specialization streams.

What is the difference between immunology and immunity? immunology, the scientific study of the body's resistance to invasion by other organisms (i.e., immunity). In a medical sense, immunology deals with the body's system of defense against disease-causing microorganisms and with disorders in that system's functioning.

What are the 4 stages of the immune response? The adaptive immune response in B cells, Helper T cells and Cytotoxic T cells involved four phases: encounter, activation, attack, and memory. in this response, activated T cells differentiate and proliferate, becoming Helper (TH) cells or Cytotoxic (TC) cells.

Is infection and immunity a good major? A major in Infection and Immunity could lead you to a career in infectious disease, diagnostics, molecular biology, biotechnology, vaccinology, antimicrobial chemotherapeutics, biosafety or regulation.

Can you build immunity to infection? Natural immunity happens after you get infected by a germ and your immune system responds by making antibodies to it. The infection could make you sick. But if you're exposed to that germ in the future, your body's defenses spot it and fight back with antibodies. This makes you less likely to get infected again.

Why would you be referred to immunology? Adults or children should be referred to an Immunology clinic if primary immune deficiency (an immunodeficiency that is not due to other causes such as medications and lymphoma) or periodic fever/auto-inflammatory condition is suspected.

What does immunology test mean? Immunological tests can also be used to diagnose congenital or acquired diseases of the immune system, differentiate between different forms of rheumatoid arthritis, or monitor the progression of an existing medical condition, such as certain types of cancer (in prostate cancer the PSA levels in blood are monitored).

What are the symptoms of immunology?

What are examples of immunology? Examples of such excessive immunologic responses that can be protective or cause disease include: 1) circulating antigen-antibody (immune) complexes of microbial antigens bound to IgM or IgG antibodies, 2) antibodies to microorganisms that cross-react with self-antigens, 3) vasoactive compounds from the complement ...

What does an immunologist do? An immunologist treats health issues brought on by immune system problems. Also known as allergists, immunologists are doctors who diagnose, treat, and work to prevent immune system disorders. You may see an immunologist if you have food or seasonal allergies, hay fever, eczema or an autoimmune disease.

How to improve immunity? Eat a diet high in fruits and vegetables. Exercise regularly. Maintain a healthy weight. If you drink alcohol, drink only in moderation.

How does the body respond to infection? White blood cells, antibodies, and other mechanisms go to work to rid your body of the foreign invader. Indeed, many of the symptoms that make a person suffer during an infection—fever, malaise, headache, rash—result from the activities of the immune system trying to eliminate the infection from the body.

What is immunology? Immunology is the study of the immune system and is a very important branch of the medical and biological sciences. The immune system protects us from infection through various lines of defence. If the immune system is not functioning as it should, it can result in disease, such as autoimmunity, allergy and cancer.

What stimulates the immune response? Antigens are any substances that the immune system can recognize and that can thus stimulate an immune response. If

antigens are perceived as dangerous (for example, if they can cause disease), they can stimulate an immune response in the body.

How long does it take for the immune system to fight an infection? By 3–4 days after infection, there are enough virus-specific lymphocytes available to start mounting an effective immune response against the virus. In order to control the infection, the immune system must both destroy virus-infected cells and prevent the spread of virus between cells.

What infections weaken the immune system? Also, infections like the flu virus, mono (mononucleosis), and measles can weaken the immune system for a brief time. Your immune system can also be weakened by smoking, alcohol, and poor nutrition. AIDS.

What main job is to fight infection? The main job of the innate immune system is to fight harmful substances and germs that enter the body, for instance through the skin or digestive system. The adaptive (specific) immune system makes antibodies and uses them to specifically fight certain germs that the body has previously come into contact with.

What to drink for the immune system?

How do you know if your body is fighting an infection? Signs and symptoms of an infection Fever (this is sometimes the only sign of an infection). Chills and sweats. Change in cough or a new cough. Sore throat or new mouth sore.

How to reset the immune system naturally?

What is the hardest autoimmune disease to diagnose? Some common autoimmune diseases, including Type 1 diabetes mellitus, are relatively easy to diagnose, while others, such as vasculitis, Addison's disease, lupus, and other rheumatic diseases, are more difficult.

What does an immunologist check for? An Immunologist is a physician trained to diagnose, treat, and manage allergies, asthma, and immunologic disorders including immune deficiencies.

What happens at an immunology appointment? At your appointment, the consultant will take your medical history and carry out an expert assessment. The consultant will then discuss the findings with you and fill out an outcome form, which you will be asked to take to the reception desk on your way out.

What does it mean when your immunology test is positive? Results may be given as titers (levels of antibodies), or as positive (you have antibodies) or negative (you do not have antibodies). Common results include: Antibodies to a specific pathogen were found – this may mean you had a previous infection or you've been vaccinated against a certain disease.

What happens if immunology is high? If your immunoglobulin level is high, it might be caused by: Allergies. Chronic infections. An autoimmune disorder that makes your immune system overreact, such as rheumatoid arthritis, lupus, or celiac disease.

How to check if the immune system is weak? Blood tests. Blood tests can determine if you have typical levels of infection-fighting proteins (immunoglobulins) in your blood and measure the levels of blood cells and immune system cells. Having numbers of certain cells in your blood that are outside of the standard range can indicate an immune system defect.

What do you mean by immunity? Immunity is the ability of the body to defend itself against disease-causing organisms. Everyday our body comes in contact with several pathogens, but only a few results into diseases. The reason is, our body has the ability to release antibodies against these pathogens and protects the body against diseases.

What is the immune response to infection? The immune response to infection is presented as two major components—innate immunity and adaptive immunity. The primary effectors of both are cells that are part of the white blood cell series derived from hematopoietic stem cells in the bone marrow (Figure 2–1).

What is immunity and why is it important? The immune system is the body's defense against infections. The immune (ih-MYOON) system attacks germs and helps keep us healthy.

What causes immunity? Acquired immunity is immunity that develops with exposure to various antigens. Your immune system builds a defense against that specific antigen. Vaccines work by causing acquired immunity without needing to have the infection first. Passive immunity is due to antibodies that are produced in a body other than your own.

What is immunology? Immunology is the study of the immune system and is a very important branch of the medical and biological sciences. The immune system protects us from infection through various lines of defence. If the immune system is not functioning as it should, it can result in disease, such as autoimmunity, allergy and cancer.

How to increase immunity?

What is immunity in a very short answer? (ih-MYOO-nih-tee) In medicine, the immune system's way of protecting the body against an infectious disease. The three types of immunity are innate, adaptive, and passive. Innate immunity includes barriers, such as skin and mucous membranes, that keep harmful substances from entering the body.

How does immunity affect infection? If an antigen enters the body and B-cells recognize it (either from having had the disease before or from being vaccinated against it), B-cells will produce antibodies. When antibodies attach to an antigen (think a lock–key configuration), it signals other parts of the immune system to attack and destroy the invaders.

What is the primary immune response of an infection? The primary immune response to antigen occurs on the first occasion it is encountered. This response can take up to 14 days to resolve and leads to the generation of memory cells with a high specificity for the inducing antigen.

How does immunity act in our body? The main job of the innate immune system is to fight harmful substances and germs that enter the body, for instance through the skin or digestive system. The adaptive (specific) immune system makes antibodies and uses them to specifically fight certain germs that the body has previously come into contact with.

How do you know if your body is fighting an infection? Signs and symptoms of an infection Fever (this is sometimes the only sign of an infection). Chills and sweats. Change in cough or a new cough. Sore throat or new mouth sore.

What drink helps white blood cells? Green tea This is because it also contains an antioxidant called epigallocatechin gallate, which has been found to improve your immune function. Green tea is also rich in L-theanine, an amino acid that is thought to help your white blood cells produce germ-fighting compounds.

What drinks boost your immune system?

What are the worst autoimmune diseases?

Why is my body not fighting off infections? Sometimes a person's immune system does not work properly. This can result from immune deficiencies present at birth; medications that suppress the immune system, like steroids; unnecessary or overzealous immune responses, such as allergies; or immune responses to one's self, called autoimmunity.

How to tell if your immune system is weak?

secrets of the pelvis for martial arts a practical guide for improving your wujifa taiji xingyi bagua and everyday life, *isuzu engine parts*, *immunology infection and immunity*

2004 optra 5 factory manual warrior mindset mental toughness skills for a nations peacekeepers nonprofit fundraising 101 a practical guide to easy to implement ideas and tips from industry experts advanced analysis inc life after 100000 miles how to keep your vehicle going longer student laboratory manual for bates nursing guide to physical examination and history taking algebra sabis audi a8 4 2 quattro service manual free stihl km110r parts manual 2002 suzuki intruder 800 repair manual economic reform and state owned enterprises in china 1979 87 studies on contemporary china strategies for e business concepts and cases 2nd edition water from scarce resource to national asset insect field guide peugeot 205 bentley manual first principles the jurisprudence of clarence thomas sony rdr gx355 dvd recorder

service manual download 2015 mazda 6 v6 repair manual the adenoviruses the viruses sharp it reference guide craftsman yard vacuum manual by jim clark the all american truck stop cookbook spiral bound finding redemption in the movies god the arts stalins folly by constantine pleshakov 2005 06 09 detroit diesel engines in line 71 highway vehicle service manual 6se250 rev 480 bosch acs 615 service manual porsche boxster boxster s product information boxster 987 2004acura mdxac compressoroilmanual manualsuzuki ltz400 kubotamx5100service manualfinancing energyprojects indevelopingcountries photoshopfinishing touchesdavecross nissanalmera n15service manualipotesi sullanatura deglioggettimatematici hondaodyssey fl250servicemanual howto masterselfhypnosis ina weekendthesimple systematicand successfulway toget everythingyouwant manualtransmissionclutch systemsaeseries euroclashtheeu europeanidentity andthe futureofeurope internationalworkstarmanual referenceguidefor essentialoils yleo5gle andwirelesscommunications technologyprentice hallworldhistory notetaking studyguideanswers prenticehall algebra1 workbookanswer keyeasyshort pianosongs encyclopediaof marinemammals secondedition nissan180sxsr20det workshopmanual smanualsherelanguageand literacypreschool activitiesafricanamerican artsupplementanswer keylg dehumidifiermanualmicrobiology anintroduction11th editiononlineliving colorpainting writingandthe bonesofseeing lombardini6ld3256ld325c engineworkshopservice repairmanual rhythmicbrain activityandcognitive controlwaveletanalysis oftheeeg duringtask switchingandmovement preparation05yz250f manual1997yamaha warrioratv servicerepair maintenanceoverhaul manualpanasonic vierathm50hd18 servicemanual repairguide ricohft5034c servicerepair manualsolutionof introductoryfunctional analysiswith applicationserwin kreyszigfilestructures anobjectoriented approachwith cstudy guidesterilprocessing tech