There are three primary scopes when testing an application or service. Your understanding of your target will determine the level of testing that you perform in your penetration testing engagement. In this task, we'll cover these three .different scopes of testing

Black-Box Testing

This testing process is a high-level process where the tester is not given any .information about the inner workings of the application or service

The tester acts as a regular user testing the functionality and interaction of the application or piece of software. This testing can involve interacting with the interface, i.e. buttons, and testing to see whether the intended result is returned. No knowledge of programming or understanding of the programme is necessary .for this type of testing

Black-Box testing significantly increases the amount of time spent during the information gathering and enumeration phase to understand the attack surface .of the target

Grey-Box Testing

This testing process is the most popular for things such as penetration testing. It is a combination of both black-box and white-box testing processes.The tester will have some **limited** knowledge of the internal components of the application or piece of software. Still, it will be interacting with the application as if it were a black-box scenario and then using their knowledge of the application to try and .resolve issues as they find them

With Grey-Box testing, the limited knowledge given saves time, and is often .chosen for extremely well-hardened attack surfaces

White-Box Testing

This testing process is a low-level process usually done by a software developer who knows programming and application logic. The tester will be testing the internal components of the application or piece of software and, for example, ensuring that specific functions work correctly and within a reasonable amount of .time

The tester will have **full** knowledge of the application and its expected behaviour and is much more time consuming than black-box testing. The full knowledge in a White-Box testing scenario provides a testing approach that guarantees the .entire attack surface can be validated