



Your skills. Your advantage.

Tosa Microsoft VBA Excel

Exam Blueprint

Table of Contents

Table of Contents	2
Introduction to the Tosa® Exam Blueprint	3
Tosa® (Test on Software Applications)	4
Tosa® Exam Blueprint Objective	4
Unique Tosa® Scoring	5
About the Tosa® Microsoft VBA Excel certification	6
Tosa Sequence for Progressive Skills Development	7
Isograd Learning Lab	8
Tosa® Microsoft VBA Excel Level Descriptions	9
Business Applications	10
Domain 1: Objects	11
Sub-domain 1: Manipulating Excel objects	11
Sub-domain 2: Managing object collections	12
Sub-domain 3: Interfacing with other applications	13
Domain 2: Procedures	14
Sub-domain 1: Writing procedures	14
Sub-domain 2: Handling errors and exceptions	15
Sub-domain 3: Improving code performance	16
Domain 3: Dialogue Boxes, User Forms, and ActiveX Controls	17
Sub-domain 1: Designing Formulas	17
Sub-domain 2: Implementing ActiveX controls	18
Sub-domain 3: Handling form events	19
Domain 4: Environment and Debugging	20
Sub-domain 1: Using debugging code	20
Sub-domain 2: Analyzing and tracing code	21
Sub-domain 3: Optimizing the development environment	22

Introduction to the Tosa[®] Exam Blueprint

For Tosa[®] Assessment and Certification

Tosa® (Test on Software Applications)

Tosa® assessments and certifications are designed to determine a candidate's proficiency level by evaluating their skills in office software and digital tools commonly used in a professional or educational environment.

These tests are specifically developed to validate the professional competencies of candidates looking to enhance their employability (employees, students, job seekers, and individuals undergoing career transitions).

Tosa® assessments and certifications are adaptive tests, developed using scientific methodologies. The scoring is based on Item Response Theory (IRT). The test algorithm adapts to each candidate's response in real time, adjusting the difficulty level of subsequent questions until it precisely determines the candidate's skill level by calculating the upper limit of their competencies. As a result, the tests provide a detailed and unique diagnosis of each candidate's abilities.

The rigor and reliability of Tosa® tests stem from the combination of a mathematical model for analyzing question difficulty and the relevance of the questions selected for each candidate (IRT).

Tosa® Exam Blueprint Objective

This exam blueprint outlines all the skills assessed within the domains and sub-domains of the Tosa® assessment and certification tests for Microsoft VBA Excel.

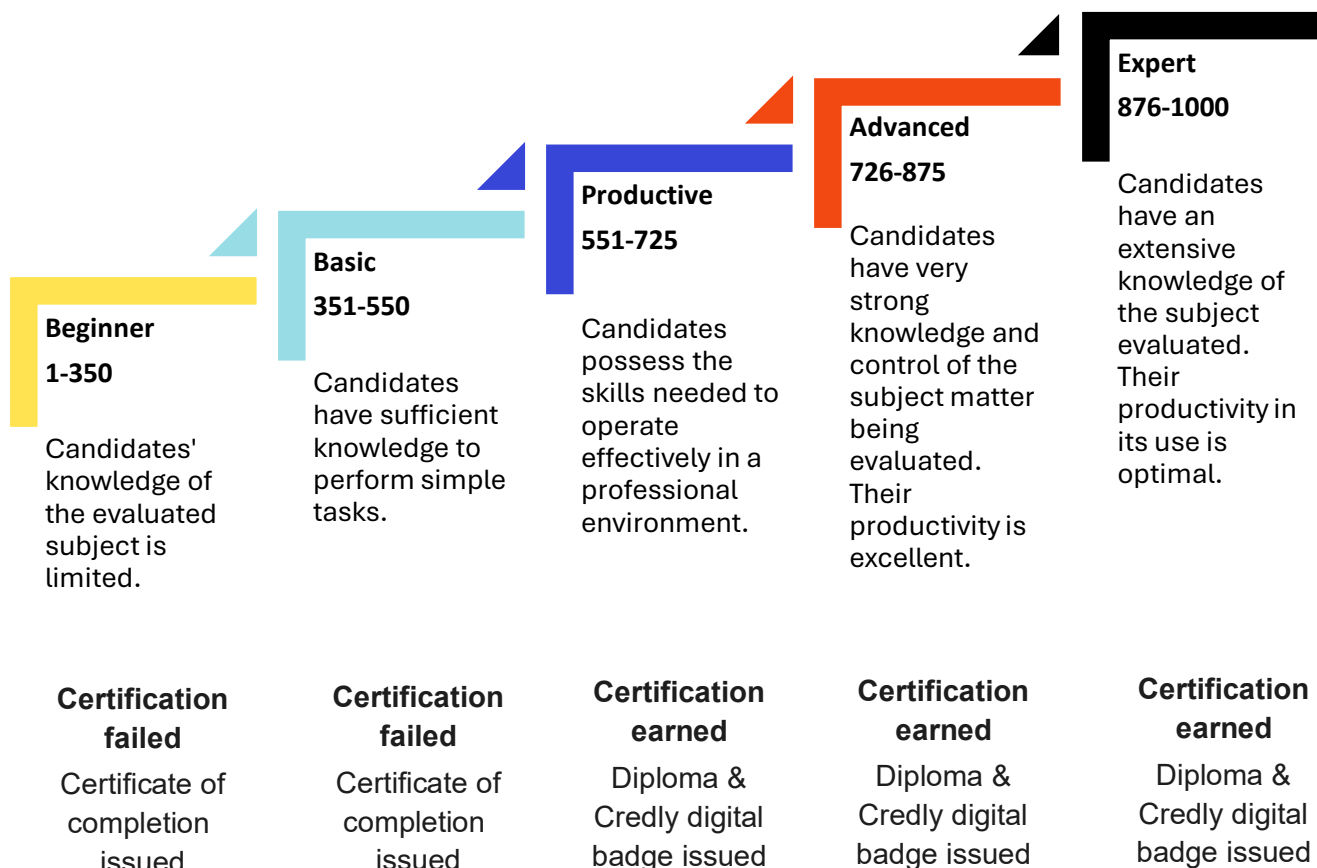
Tosa® assessment and certification solutions are designed to determine learners' proficiency levels using a single scoring scale—ranging from 0 to 1000 for certification—and divided into five levels, from “Beginner” to “Expert,” for the assessment.

The purpose of this framework is to specify the technical knowledge expected at each level and within each of the four main skill categories of Microsoft VBA Excel. It is intended to help identify the most appropriate teaching or training programs to match a learner's target score.

Unique Tosa® Scoring

The Tosa® assessments and certifications are based on a unique score, divided into five levels.

- Ranging from 1 to 1000 for the certification.
- Divided into five levels, from Beginner to Expert, for the assessment.



About the Tosa® Microsoft VBA Excel certification

The Tosa Microsoft VBA Excel Certification relies on a database of more than 150 questions. It is composed of 35 questions from the question database and lasts for 1 hour. The algorithm adapts to each of the candidate's answers to adjust the difficulty level of the questions until reaching the candidate's skill limit. This ensures a precise and accurate result.

Since the test is adaptive, the series of questions that a candidate gets is unique for each test. This algorithm allows for a more accurate evaluation of the candidate's level. It also limits cheating and the memorization of questions on different passages.

Our platform allows individuals to take the certification in a classroom setting, an approved testing center, or remotely via our integrated asynchronous online proctoring solutions.

Our remote proctoring solutions provide added flexibility for both the administrator and the candidate, allowing the certification exam to be taken anywhere, at any time. The candidate only needs an internet connection and a computer equipped with a working webcam and microphone.

Candidates receive a numeric score out of 1000 points. This score corresponds to one of five proficiency levels. Candidates who score between 1 and 550 points do not earn the certification. They receive a certificate of completion in lieu of a diploma. Candidates who score 551 points or above earn the certification and will receive a diploma by email within five business days. If a candidate scores 551 points or above, they will also be eligible to receive a digital Credly badge.

There are no prerequisites to be eligible to take the exam, but to ensure a candidate is well prepared on exam day, we suggest they:

- Take at least one Tosa Microsoft VBA Excel adaptive assessment to estimate their level and get familiar with the test format
- Use the free practice tests on our website for training
- Follow an e-learning or training course (average duration per level is between 10 and 15 hours per certification, so around 150 hours total)

Tosa certification diplomas are valid for three years from the date of issue. This three-year period has been set to ensure that our certifications are consistently accurate and relevant, taking into account software version updates as well as the natural evolution of a candidate's skills over time. Limiting the certification period also reflects the need for life-long learning and continual professional development.

Tosa certifications can be retaken when they expire. Earners willing to improve their score and proficiency level can retake the exam at any time.

Tosa Sequence for Progressive Skills Development

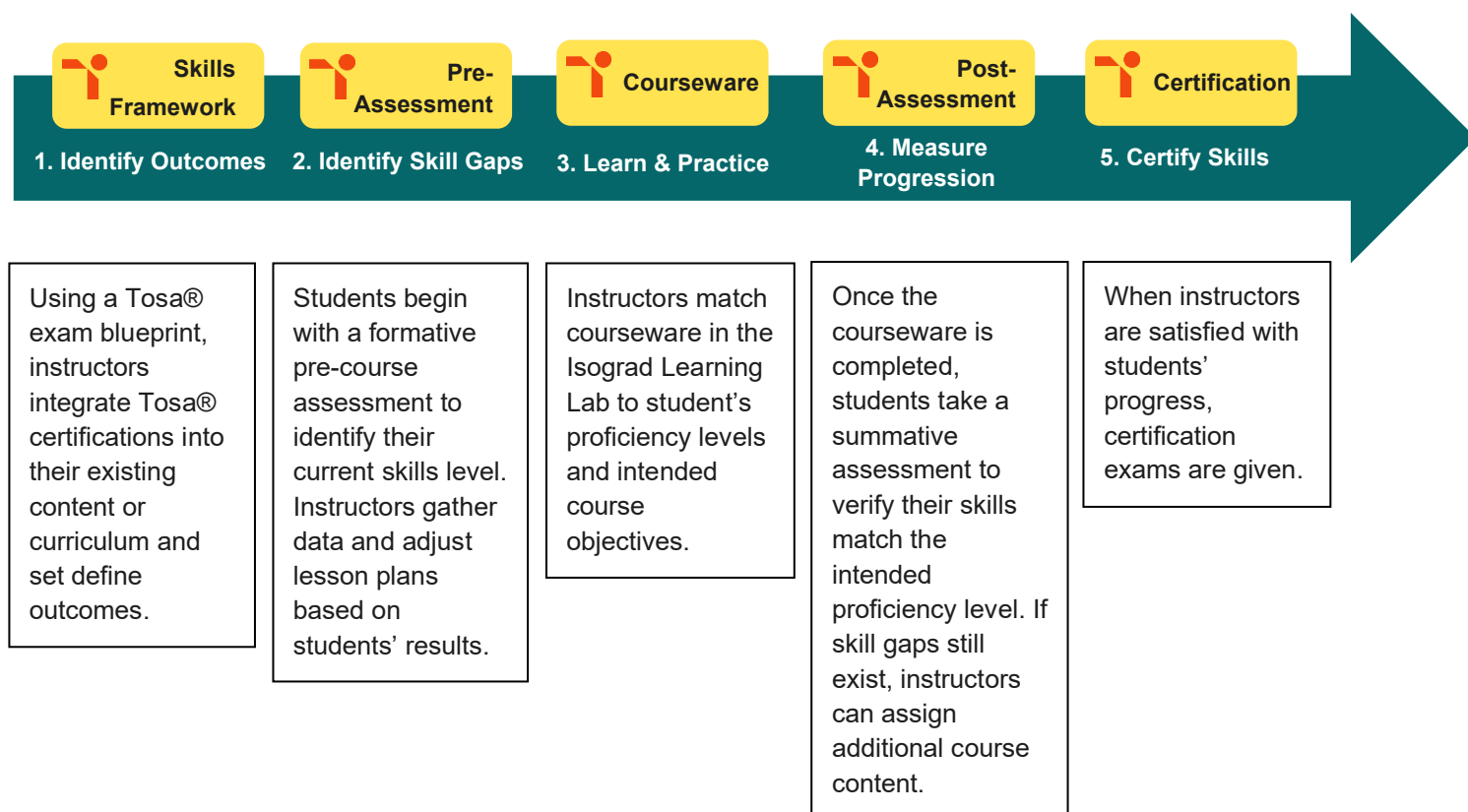
Students and professionals can tailor their certification journey with Tosa through vertical progression, demonstrating increasing proficiency in Microsoft VBA Excel. Starting at a productive level, users can advance to advanced and expert levels as their skills grow. This clear path encourages continuous improvement and validates each stage of their development. Tosa's structure makes it easy to track progress and showcase evolving expertise.

Isograd Learning Lab

The Isograd Learning Lab is a multifaceted and adaptable courseware solution designed to help learners prepare for Tosa certification exams. It offers personalized, self-paced, and fully interactive learning experiences, equipping candidates with the essential digital skills that employers seek. These skills span a wide and varied range, applicable to learners just starting their career journey to those wishing to advance on their path.

The browser-based platform supports all learning styles with a wide array of features, including in-application exercises. These in-application capabilities allow learners to experience real-world examples of specific tasks within a given software environment. The lab includes inclusive learning resources, along with extension activities and project-based learning challenges that foster creativity and critical thinking.

All course content on the Isograd Learning Lab is aligned to a Tosa exam blueprint, which is the foundation of any Tosa certification exam. By aligning course content to an exam blueprint, learners will be prepared to take the exam once they complete the courseware.



Tosa® Microsoft VBA Excel Level Descriptions

At each level, candidates can:

Beginner

- Create small macros using the macro recorder but may require assistance with more complex scripts or when debugging programs.

Basic

- Apply fundamental VBA skills to develop scripts that enhance the basic functionality of spreadsheets.
- Write simple procedures (Subs and Functions) and use them to automate repetitive tasks.
- Work independently as long as the requirements are clear and the issues encountered are not overly complex.

Productive

- Demonstrate command of loops and conditionals and ability in manipulating host application objects.
- Work independently on most common VBA projects, and can begin integrating forms and controls to enhance the user interface.

Advanced

- Develop complex applications integrated within the Microsoft environment.
- Demonstrate proficiency in using Windows APIs to extend application functionality.
- Optimize code to enhance performance and script security.
- Create and manage complex user interfaces using custom forms.

Expert

- Demonstrate expert-level VBA skills, designing complex and innovative automated solutions tailored to high-level, specific needs.
- Master advanced debugging, error handling, and the securing of VBA applications.
- Create custom Microsoft add-ins, integrating applications with other services via APIs, and share advanced knowledge with other developers.

Business Applications

Achievement of Beginner score defines little or limited knowledge of VBA, including the languages' basic functions and features, highlighting the candidate's inability to perform in a professional environment.

For a data entry clerk or junior administrative assistant, skills at this level enable a candidate to manage basic VBA routines: open and navigate the Visual Basic for Applications editor, input and revise simple code procedures accurately, and apply fundamental syntax and formatting practices to ensure clarity and consistency in Excel-based automations.

For a marketing assistant, reporting specialist, or operations associate, these skills enable a candidate to create, organize, troubleshoot, and professionally format VBA procedures in Excel; insert and customize user forms, charts, and other interactive elements; and prepare workbooks for automated reporting, digital distribution, or internal review by analytics and operations teams.

For a business analyst, content automation specialist, or marketing coordinator, these skills enable a candidate to build, enhance, and structure multi-step VBA solutions such as automated dashboards, custom reports, or data transformation tools; manage integrated elements like charts, pivot tables, and external data sources; and export or share results in the appropriate format for digital reporting or team collaboration.

For a solutions architect, senior analyst, automation lead, or other VBA-focused professional, these skills enable a candidate to customize the VBA development environment, organize and present complex data workflows, build tailored automation solutions for specific business needs, and manage advanced programming elements such as modular procedures, dynamic user interfaces, and error-handling frameworks.

Domain 1: Objects

Sub-domain 1: Manipulating Excel objects

Covers: Using and managing key Excel objects such as Workbooks, Worksheets, Ranges, and Charts: creating, modifying, and deleting these objects, and using their properties and methods to automate specific tasks in Excel.

Beginner

- Understand basic objects such as Range and Cells.

Basic

- Select data from worksheets using VBA to automate the extraction and processing of information needed for reports.

Productive

- Automate frequent tasks.
- Manipulate ranges dynamically based on input data.
- Use collections to perform complex actions on multiple objects.
- Write scripts that interact with various objects to automate reporting and analysis.

Advanced

- Integrate Excel objects with other Microsoft 365 applications via VBA to automate the sending of reports generated in Excel by email through Outlook, thereby improving the efficiency of key data communication to stakeholders.
- Develop custom solutions that use a wide range of Excel objects.

Expert

- Design complex systems that extensively manipulate Excel objects to automate business processes.
- Lead automation projects that integrate Excel with other technologies.

Sub-domain 2: Managing object collections

Covers: Managing groups of similar objects in Excel, such as the Worksheets or Cells collection: ability to loop through, add, or remove items from the collection, and use loops to perform repetitive operations on each item in the collection.

Beginner

- Understand collections to manipulate groups of objects.

Basic

- Perform simple tasks using collections, such as bulk updating data via VBA to quickly modify and synchronize large data sets across multiple worksheets.

Productive

- Use advanced collections to create dynamic user interfaces and reports via VBA, providing interactive and personalized experiences for users, and facilitating navigation and analysis of complex data through adaptive forms and dashboards.

Advanced

- Optimize performance and collection management for large-scale applications to ensure fast and efficient processing of large data sets, minimizing calculation time and improving the responsiveness of complex applications.

Expert

- Develop custom solutions that use collections to interact with databases and web services to automate the retrieval and integration of external data, thereby facilitating real-time information updates and analysis for informed decision-making.

Sub-domain 3: Interfacing with other applications

Covers: Using VBA to interact with other Microsoft 365 programs such as Word, Access, Outlook, etc. This may include automating tasks across applications, such as exporting data from Excel to Word or sending emails via Outlook using COM (Component Object Model) objects.

Beginner

- Execute basic commands in other Microsoft applications via VBA.

Basic

- Exchange data and control applications like Word and Outlook with VBA.

Productive

- Automate cross-application processes via VBA to improve operational efficiency by coordinating workflows across different Microsoft 365 programs, thereby reducing repetitive manual tasks and associated errors.
- Integrate complex features across applications.

Advanced

- Develop custom integrated solutions to optimize cross-application workflows, streamlining business processes and increasing productivity and data consistency across different Microsoft 365 platforms.

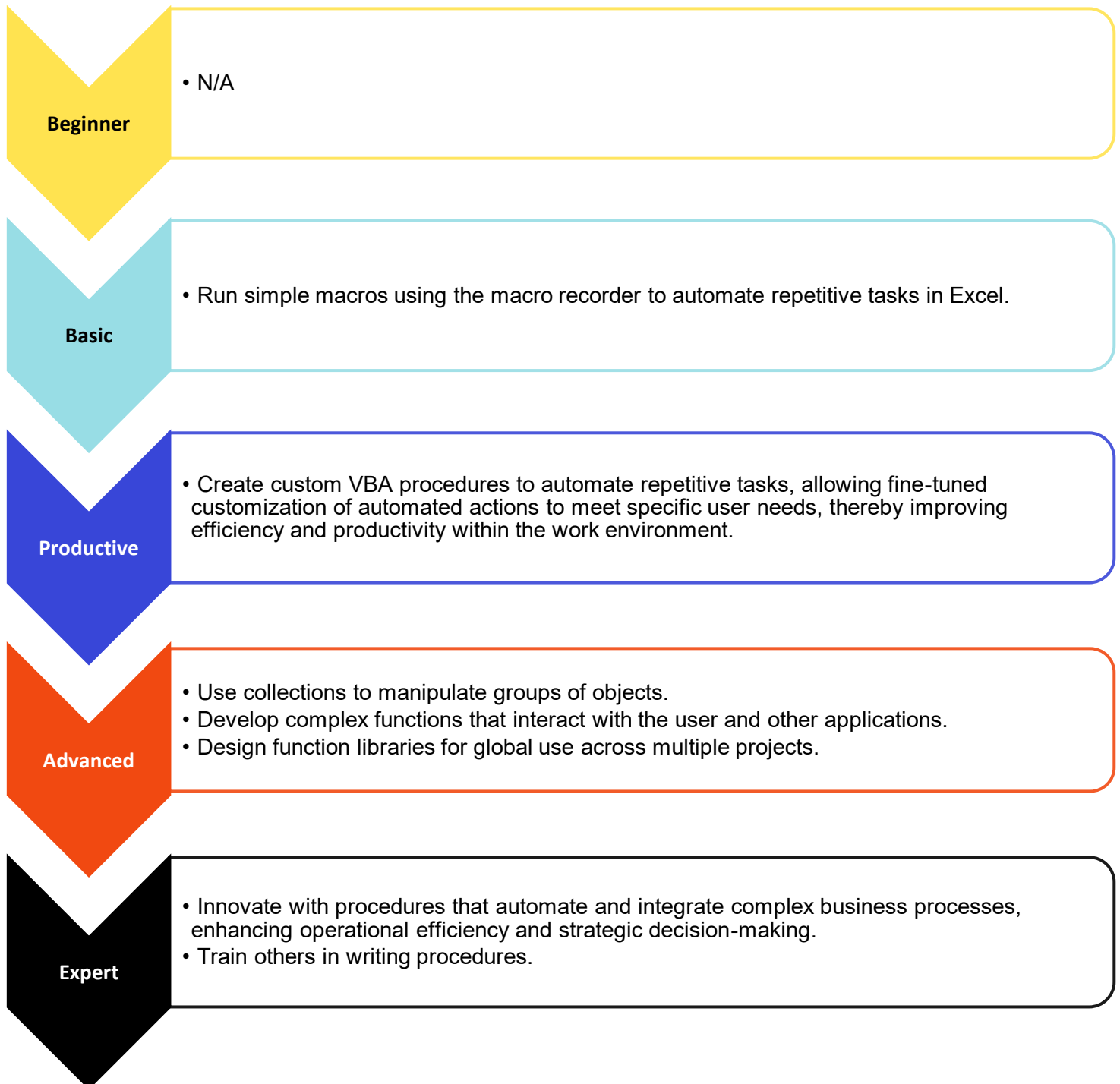
Expert

- Create automation solutions using VBA to drive business processes across multiple Microsoft applications, streamlining operations, reducing human error, and increasing overall efficiency for complex tasks involving Excel, Word, Outlook, and Access.

Domain 2: Procedures

Sub-domain 1: Writing procedures

Covers: Creating subroutines and functions in VBA to perform specific tasks. Using arguments and parameters to pass data between procedures.



Sub-domain 2: Handling errors and exceptions

Covers: Implementing error-handling mechanisms to make code more robust and less prone to crashes. Setting up cleanup and recovery procedures following an error.

Beginner

- Recognize an error to prevent script crashes.

Basic

- Use error-handling structures to maintain application stability.

Productive

- Create error recovery mechanisms to handle exceptions without service interruption.

Advanced

- Analyze and optimize scripts to prevent errors in critical environments by using advanced VBA programming techniques such as effective error handling, data validation, and performance optimization, thereby ensuring the reliability and stability of deployed applications.

Expert

- Develop error logging and reporting systems to improve maintenance and debugging of enterprise solutions.

Sub-domain 3: Improving code performance

Covers: Optimizing VBA routines to run faster and more efficiently. This may include techniques such as minimizing access to Excel objects, using appropriate data types, optimizing loops, and managing memory effectively.

Beginner

- Understand the basics of writing efficient code, such as avoiding unnecessary loops.

Basic

- Identify and improve bottlenecks in existing scripts.

Productive

- Use advanced optimization techniques such as reducing loop execution time, minimizing access to external objects, and efficiently using data structures, thereby ensuring optimal performance and efficient resource usage in VBA applications.

Advanced

- Rewrite existing procedures to optimize overall application performance by identifying and implementing improvements such as reducing the number of object calls, optimizing algorithms and data structures, and removing unnecessary redundancy, thereby ensuring faster and more efficient task execution in VBA applications.

Expert

- Design highly optimized algorithms and data structures for critical applications using advanced programming and data management techniques such as caching, parallelization, and optimized data access, thereby ensuring optimal performance and efficient resource usage in environments where reliability and speed are essential.

Domain 3: Dialogue Boxes, User Forms, and ActiveX Controls

Sub-domain 1: Designing Formulas

Covers: Creating UserForms in VBA to interact with the user: setting up the user interface, add controls such as buttons, labels, and textboxes, and managing their layout and properties.

Beginner

- Read basic UserForms to collect user input.

Basic

- Use forms with simple controls and validation logic.

Productive

- Integrate UserForms into complex workflows to drive applications by creating user-friendly and interactive interfaces that allow users to enter, view, and manipulate data efficiently, thereby facilitating navigation and business process management within the Microsoft 365 environment.

Advanced

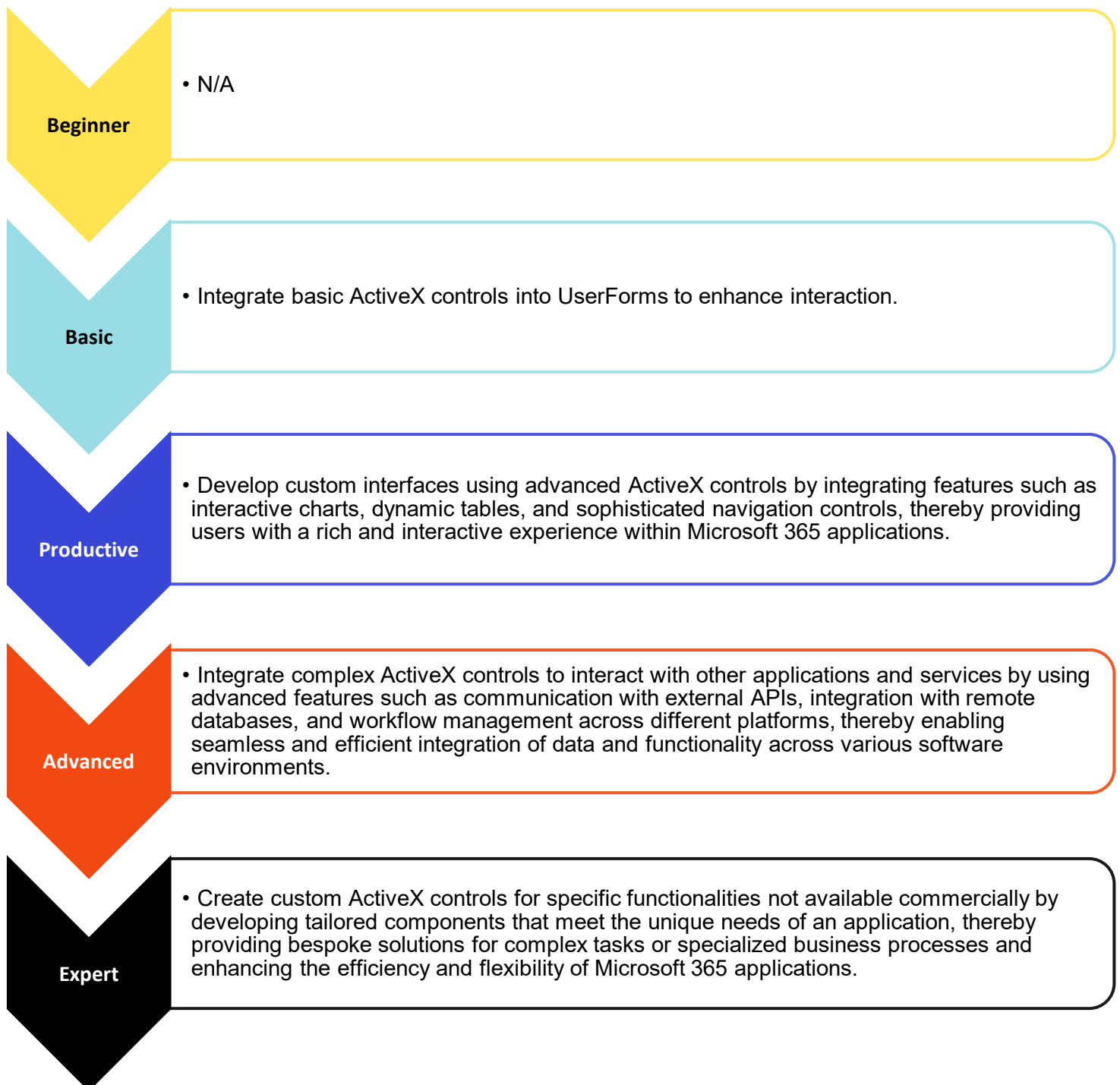
- Design interactive and professional user interfaces with advanced UserForms by integrating custom controls, sophisticated layouts, and advanced features such as data validation and dynamic interactions, thereby providing an enhanced user experience and intuitive navigation within Microsoft 365 applications.

Expert

- Develop custom form solutions that integrate web technologies and databases via VBA, using advanced UserForms to collect data from users and seamlessly incorporate it into online systems or external databases, enabling smooth communication and efficient information management across different environments.

Sub-domain 2: Implementing ActiveX controls

Covers: Adding and managing ActiveX controls in forms or directly on Excel worksheets: adding controls such as buttons, checkboxes, and dropdown lists, and programming their behavior through event handling.



Sub-domain 3: Handling form events

Covers: Writing code to respond to user actions on forms, such as button clicks, text changes, or list selections. Using events associated with controls and forms to trigger specific actions in response to user interactions.

Beginner

- Understand basic form events such as button clicks.

Basic

- Program simple responses to user actions in UserForms.

Productive

- Design fully event-driven workflows in forms by using advanced event-handling mechanisms to trigger specific actions in response to user interactions, enabling the creation of responsive and dynamic user interfaces that guide users smoothly and intuitively through complex business processes.

Advanced

- Use complex events to integrate forms into advanced business processes by developing sophisticated event-triggering mechanisms that enable dynamic interaction between users and systems, thereby facilitating the seamless integration of forms into broad and varied business workflows.

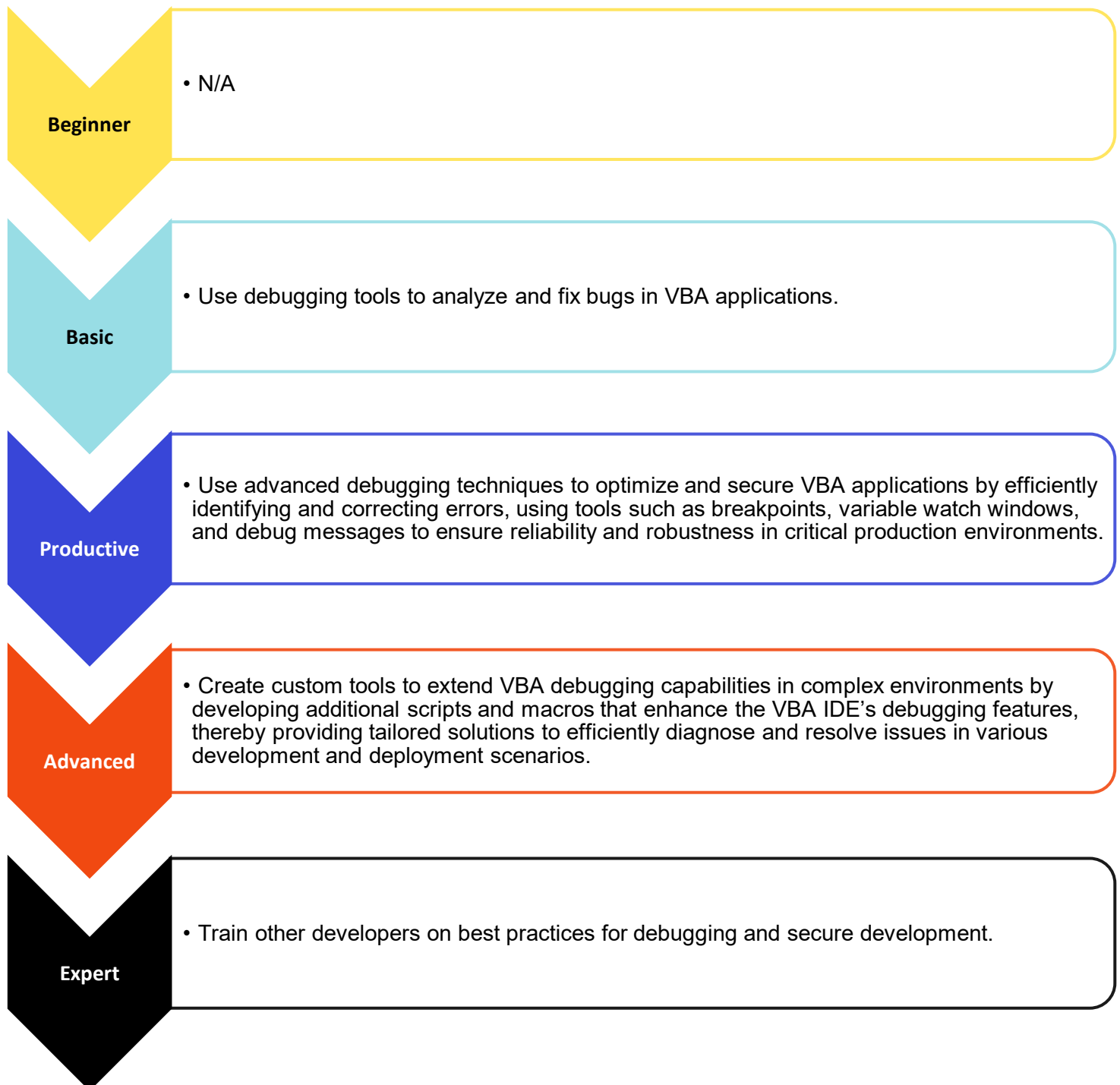
Expert

- Develop innovative solutions that use form events to automate and optimize critical business processes.

Domain 4: Environment and Debugging

Sub-domain 1: Using debugging code

Covers: Knowing and using the tools integrated into the VBA IDE to identify and fix errors in code. Using breakpoints, the Immediate Window, variable watches, and step-by-step code execution.



Sub-domain 2: Analyzing and tracing code

Covers: Using tracing and logging features to understand code behavior and identify potential issues: using Debug.Print statements to display messages in the Immediate Window and analyzing execution flows to optimize and debug routines.

Beginner

- Use basic tracing tools to understand code flow.

Basic

- Use tools to monitor execution and detect anomalies by using scripts and macros that actively track the performance and behavior of VBA applications, enabling quick identification of errors, slowdowns, and other potential issues, thereby ensuring reliability and stability in critical operational environments.

Productive

- Apply profiling techniques to analyze code performance and efficiency by using specialized tools or custom scripts to measure and evaluate execution times, resource usage, and other key metrics, thereby identifying code areas that require optimization to improve overall VBA application performance.

Advanced

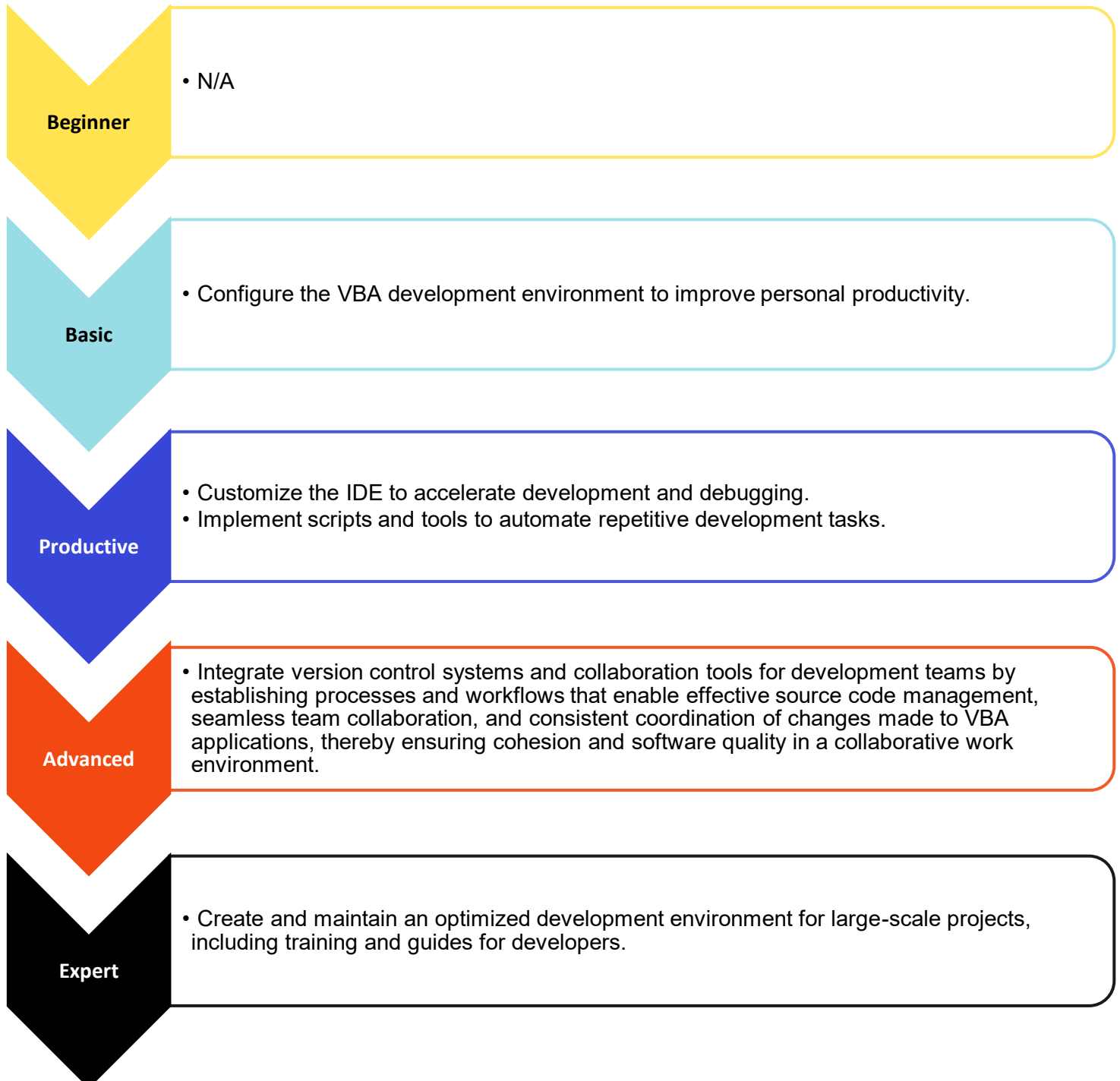
- Analyze large codebases to identify and resolve performance and security issues by using advanced techniques such as manual inspection and automation with custom scripts, enabling the detection and correction of potential vulnerabilities, programming errors, and bottlenecks that could compromise the stability or security of the VBA application in critical environments.

Expert

- Lead code refactoring projects to improve maintainability, performance, and security.

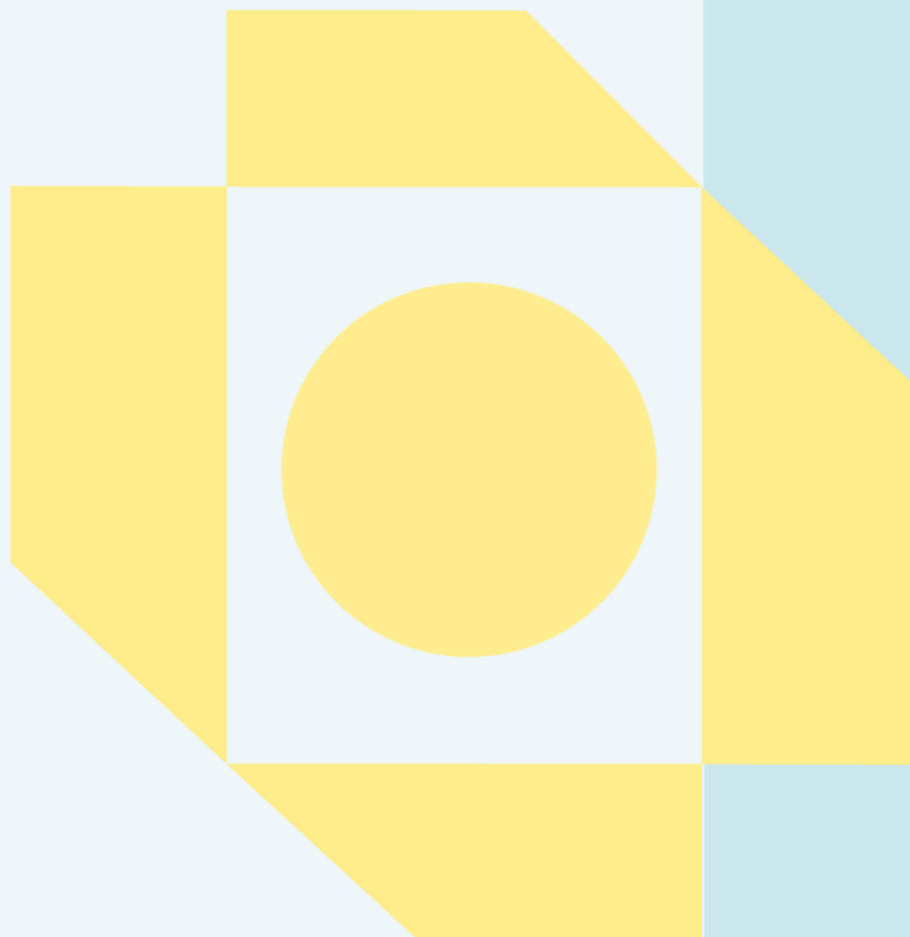
Sub-domain 3: Optimizing the development environment

Covers: Configuring the VBA IDE to maximize development efficiency. This includes customizing the editor, managing project references, using code templates, and setting up a structured environment for developing and managing VBA projects.





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contact@isograd.com

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