



IT

LEARNERSHIP



**SOFTWARE
DEVELOPER**

118707



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405 Cliff Ave, Waterkloofridge, Pretoria



BOOK NOW



18-24 MONTHS



**CLASSROOM
/ONLINE TRAINING**



NQF LEVEL 5 CREDITS (220)

ABOUT THE COURSE

The Software Developer programme prepares learners to analyse requirements, translate them into working software solutions, and build applications that meet client, functional, and technical requirements.

Learners develop the ability to test, implement, and maintain software applications using suitable programming languages and frameworks. The programme combines software development theory, practical coding, data handling, web technologies, cloud automation, Python development, system modelling, governance, ethics, 4IR skills, and workplace-based learning. It is designed to build full software solution capability from requirements analysis through design, development, testing, deployment, and maintenance.



Target Audience

- School leavers and aspiring ICT professionals
- Individuals interested in software development careers
- Learners wanting front-end, back-end, or full-stack skills
- People seeking careers in application development, programming, and software solution design

PRICE

VIRTUAL TRAINING : (Price on request)

CLASSROOM TRAINING: (Price on request)

(Includes snacks and beverages – only applicable to classroom bookings)

KNOWLEDGE MODULES

SMART ZONE

1. Computers and Computing Systems

- Computer systems and components
- Operating systems and connectivity
- Cloud computing and security
- Programming and development foundations

2. Desktop and Professional Software to Communicate and Visualise Information

- Electronic communication
- Office software packages
- Document creation and management
- Presentation tools

3. Automated Webscraping as a Data Source

- Data sources and capturing systems
- Web scraping fundamentals
- Big data and data quality
- Data governance and legislation
- Data wrangling and data structures

4. Logical Thinking and Basic Calculations

- Mathematical thinking
- Decimal and binary conversion
- Operator precedence, modulus, increments, and mixing types

5. Computing Theory

- Programming languages
- Programming basics
- Software applications

6. Software Development with HTML5, Opensource Frameworks and Libraries

- Core programming
- Object-oriented programming
- General software development
- HTML5, CSS, and JavaScript
- Web and application development

7. UML as Standard Modelling Language for Software and Systems Development

- Use cases and activity diagrams
- Class, sequence, communication, and timing diagrams
- Component, package, state machine, and deployment diagrams

8. Obtaining, Querying, Manipulating and Presenting Data with and without MVC

- Core database concepts
- Creating and manipulating databases
- SQL and data administration

9. Software Development Life Cycle, Programming Languages, Algorithms and Security

- SDLC phases
- Programming concepts
- Algorithms Security in software development
- Machine learning foundations

KNOWLEDGE MODULES

SMART ZONE

10. Introduction to Software Developer Governance, Legislation and Ethics

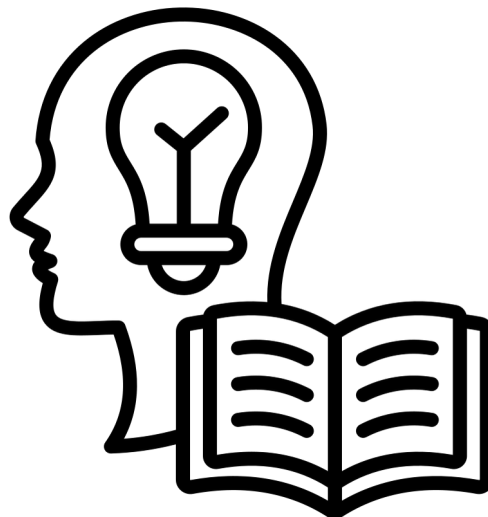
- Governance
- Workplace legislation
- Ethics, security, and performance management

11. 4IR and Future Skills

- Emerging 4IR trends
- Future skills and competencies
- Communication, teamwork, and customer service

12. Design Thinking Principles for Innovation

- Design thinking
- Creativity Innovation
- Human-centred problem solving



WORK BASED AREAS

SMART ZONE

- Software development
- Application development
- Front-end development
- Back-end development
- Full-stack development
- Web application development
- Desktop GUI development
- Mobile app development
- Cloud automation and software solution development



PRACTICAL SKILLS

SMART ZONE

1. Communication and Visualisation Tools

- Use office and desktop software
- Create and manage documents
- Design and deliver presentations

2. Spreadsheet and Data Skills

- Manage spreadsheets and workbooks
- Analyse, visualise, and report on data
- Use visual analytics platforms
- Query and massage data

3. Logical and Programming Foundations

- Apply logical thinking and math
- Apply code to software toolkits and platforms

PRACTICAL SKILLS

SMART ZONE

4. Web and Application Development

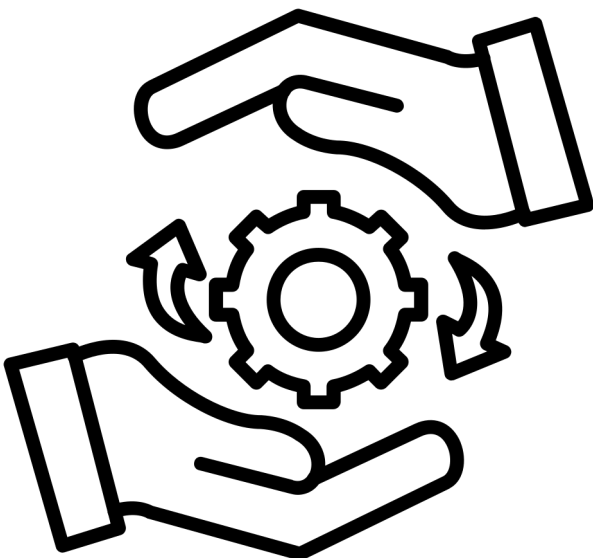
- Develop software using HTML5, open-source frameworks, and libraries
- Design and build web applications
- Build desktop graphical user interfaces
- Build mobile apps

5. Cloud and Python Development

- Use a cloud automation platform to create solutions
- Develop software using Python

6. Development Cycle and Innovation

- Apply the development cycle when developing software
- Participate in design thinking workshops
- Function ethically and effectively in a team



KEY FEATURES

SMART ZONE

- Occupational Certificate: Software Developer
- Curriculum Code: 251201005
- Associated Occupation: Software Developer
- Entry Requirement: NQF 4
- Alternative titles include Applications Developer, ICT Programmer, Front-end Developer, Back-end Developer, and Full-stack Developer
- 12 knowledge modules
- 14 practical skills modules
- 4 work experience modules
- Knowledge credits: 66
- Practical credits: 89
- Work experience credits: 65
- Includes HTML5, CSS, JavaScript, Python, SQL, UML, SDLC, cloud automation, and design thinking
- Development Quality Partner: MICT SETA



BENEFITS OF THIS LEARNERSHIP

- Prepares learners for careers in modern software development
- Builds front-end, back-end, and full-stack development capability
- Develops practical coding, database, and web application skills
- Equips learners to analyse requirements and convert them into working software solutions
- Includes HTML5, CSS, JavaScript, Python, data handling, and cloud automation
- Builds strong problem-solving, design, and development cycle skills
- Includes workplace experience and a capstone project
- Develops communication, ethics, teamwork, and customer-focused workplace skills
- Supports entry into application development, programming, and software engineering pathways
- Aligns with 4IR, digital transformation, and future technology careers



SIGN UP NOW

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3. Fill in the registration form.
4. Choose your payment method and finalize the booking.

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