

## GeneXus Analyst Certification Upgrade Exam – Versions prior to GX15 to GX18

### Study material:

- **GeneXus 18 overview**

- [Introduction to GeneXus 18](#)
  - [Super Apps & Mini Apps with GeneXus 18](#)
  - [Total experience with GeneXus 18](#)
  - [Unanimo Design System](#)
  - [DevOps Culture with GeneXus. Overview](#)

- **Transactions: Advanced topics**

- [Rules: Review and client side validation](#)
  - [More rules to define behavior](#)
  - [Rule triggering events in transactions \(continued\)](#)
  - [Evaluation tree for triggering rules and formulas](#)
  - [Rule triggering events in transactions \(final\)](#)
  - [Subtypes: Multiple references and specialization](#)
  - [More use cases of subtypes](#)
  - [Formulas vs. assignment rules](#)
  - [Events in Transactions](#)
  - [Dynamic transactions](#)
  - [Analysis of the transaction design model](#)

- **Lists and access to data through code**

- [More about the For each command](#)
  - [More about nested For each commands](#)
  - [Unique clause](#)
  - [Data Providers: Language and some examples](#)
  - [Automatic data population](#)

- **Business Components**

- [Single-level Business Components. Review](#)
  - [Two-level Business Components](#)
  - [Single-level and two-level Business Components: Comparison](#)
  - [Business Components: Differences between methods](#)
  - [Comparison of BC vs. procedure-specific commands](#)

- **Web panels**

- [Base table and navigation of web panels without grids](#)
  - [Base table and navigation of web panels with one grid](#)
  - [Base table and navigations of web panels with several grids](#)
  - [How to implement a control break with nested grids](#)
  - [Global events](#)

- **Panels: Multi-channel screens**

- [Web screens with customer-facing focus. Introduction](#)
  - [Panel object. First steps](#)
  - [Panel object. Data loading and events](#)

- **Reporting Tools**

- [Dynamic queries: Query object and Query viewer](#)

- **Automated tests**

- [Automated tests. Introduction](#)