Product Roadmap

April 2024

FOUR Js
The Power of Simplicity

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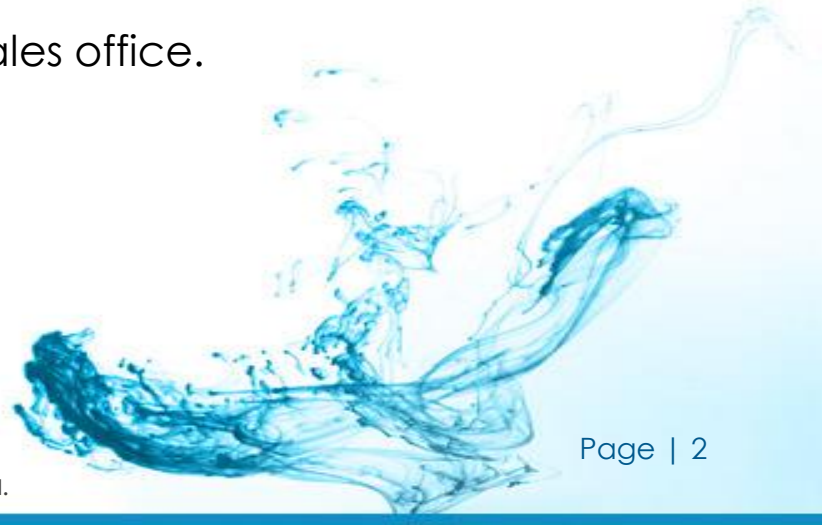

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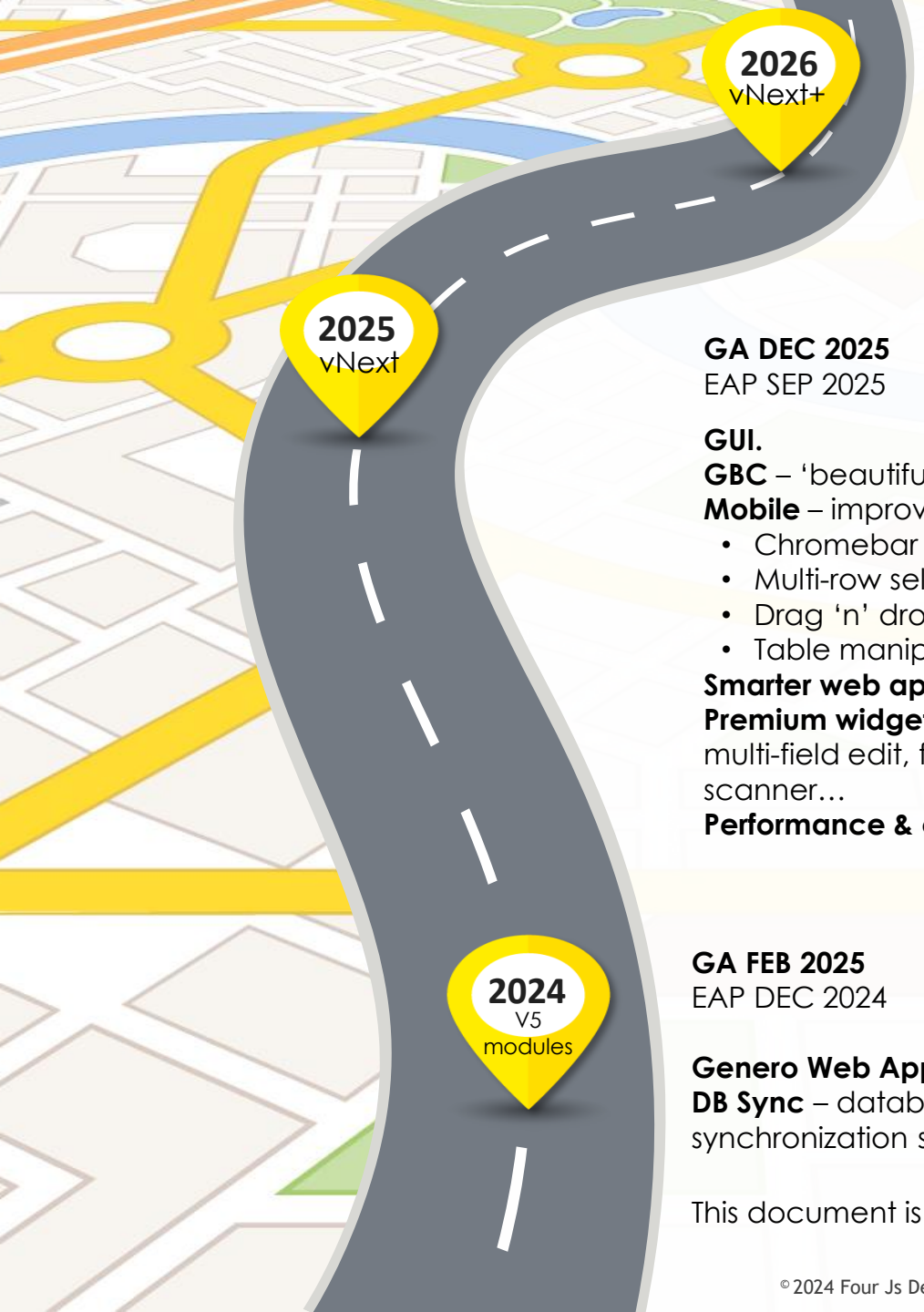

ROADMAP
FY24-26

GA DEC 2026
EAP OCT 2026

GUI.
- Pixel Perfect Layout (PPL),
- Streamed voice input.

AI.
- Search widget (construct),
- SQL, Form, Report generation,
- BDL coding assistants.

GA DEC 2025
EAP SEP 2025

GUI.
GBC – 'beautiful' theme,
Mobile – improved rendering for small devices,
- Chromebar design,
- Multi-row selection,
- Drag 'n' drop,
- Table manipulations.

Smarter web apps – improved support for 'Front Calls',
Premium widget set – chat, circular image, star rating, multi-field edit, floating action button, bar code scanner…
Performance & compatibility.

Language & infrastructure,
- Logging, monitoring and observability,
- Authentication delegation,
- REST OpenAPI full support.

Report Writer,
- Smart tables (rowspan, autosize),
- SaaS Report Designer,
- Top N% in charts, transforms and pivot tables (Crystal Reports),
- Other Crystal Reports compatibility features.

AI.
- Conversational UI (chat),
- Chatbot documentation search.

GA FEB 2025
EAP DEC 2024

Genero Web Apps (GWA),
DB Sync – database synchronization service.

GA DEC 2024
EAP OCT 2024

Theme customizer.

GA SEP 2024
EAP JUN 2024

Cloud & containers.
- Containers & Kubernetes®.

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GENERO V5 MODULES

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CLOUD & CONTAINERS

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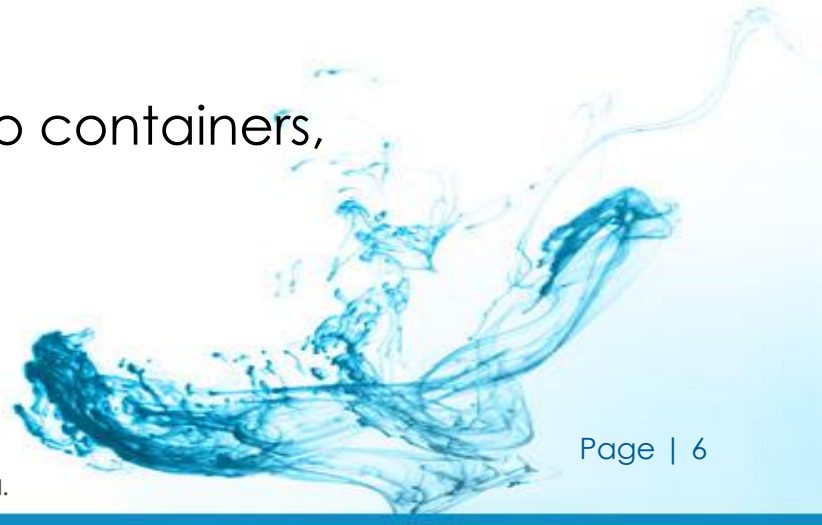
Cloud & Containers

- **Runtime container,**
  - Provides a base image with a ready to use runtime environment,
  - Reference application server deployment architecture,
  - Choice of database connectivity,
  - Logging, monitoring.
- **Build container,**
  - Genero Archive (GAR) build service for Studio projects for integration in CI/CD,
  - Builds a studio project into a GAR file.
- **Services.**
  - Training (Containers, Cloud, Kubernetes® (K8s)),
  - Application migration project: case by case upgrade to containers,
  - Cost effective deployment to Cloud
    - (simple, docker compose, Application Load Balancer (ALB), K8s).



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Cloud & Containers

- **Uses cases & benefits (Runtime container).**

DevOps:

- Reference runtime environment for development and testing,
- Easily share and update environment,
- Reduce the gap between dev & operations,
- Infrastructure as Code (IaC) for a well defined and replicable production system.

Production:

- Virtualization as containers: ease & reliability of deployment,
- Choice of deployment system: on desktop machine, bare metal server, cloud single managed container, cloud with multiple containers and ALB, K8s for high and variable load.

Build application infrastructure from a preconfigured base container:

- Run with a GAR or Binaries,
- Complement base container with custom components and modules (using DockerFile).

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THEME CUSTOMIZER

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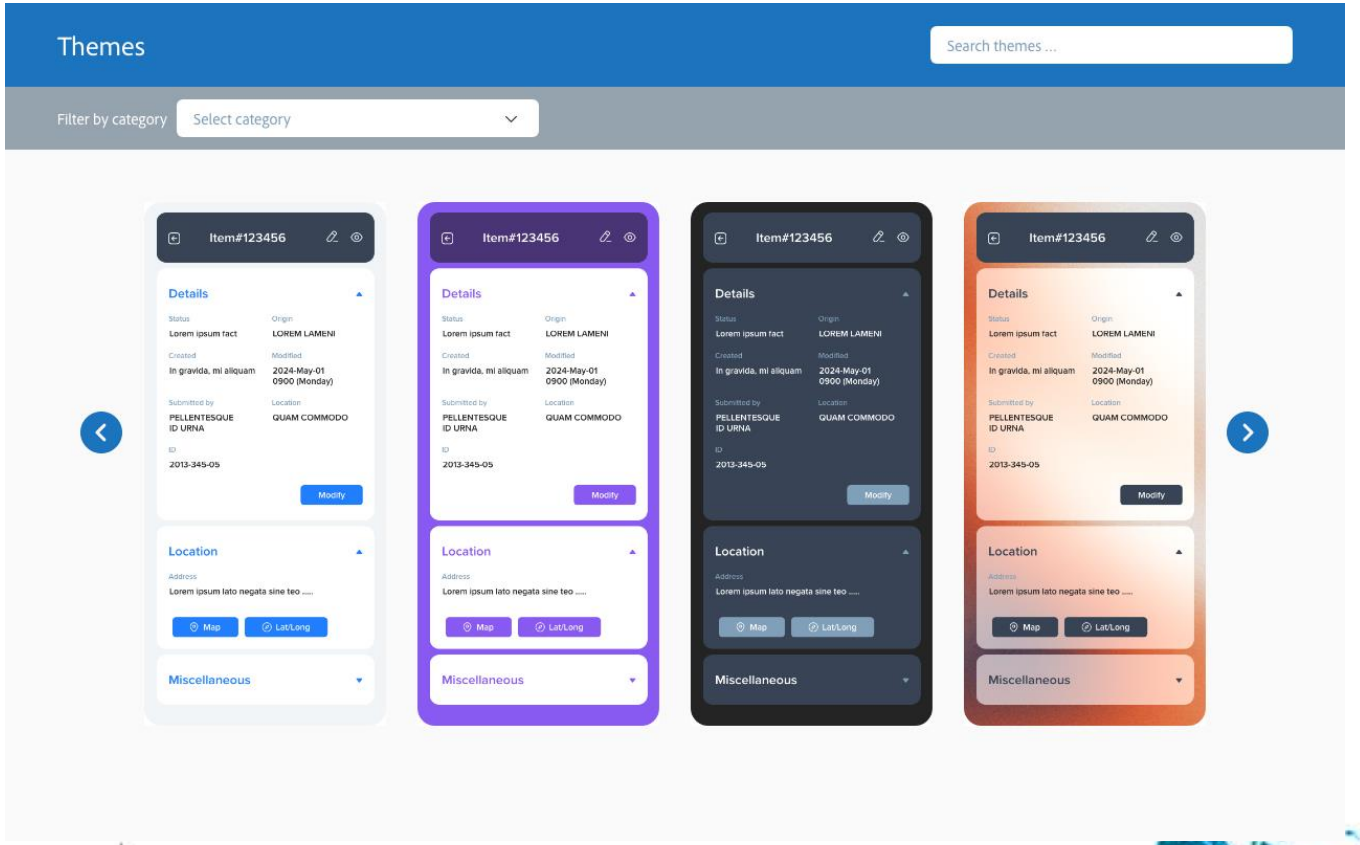
Theme customizer

- **GBC Themes available on Web site.**
  - Use as a base for custom designs.



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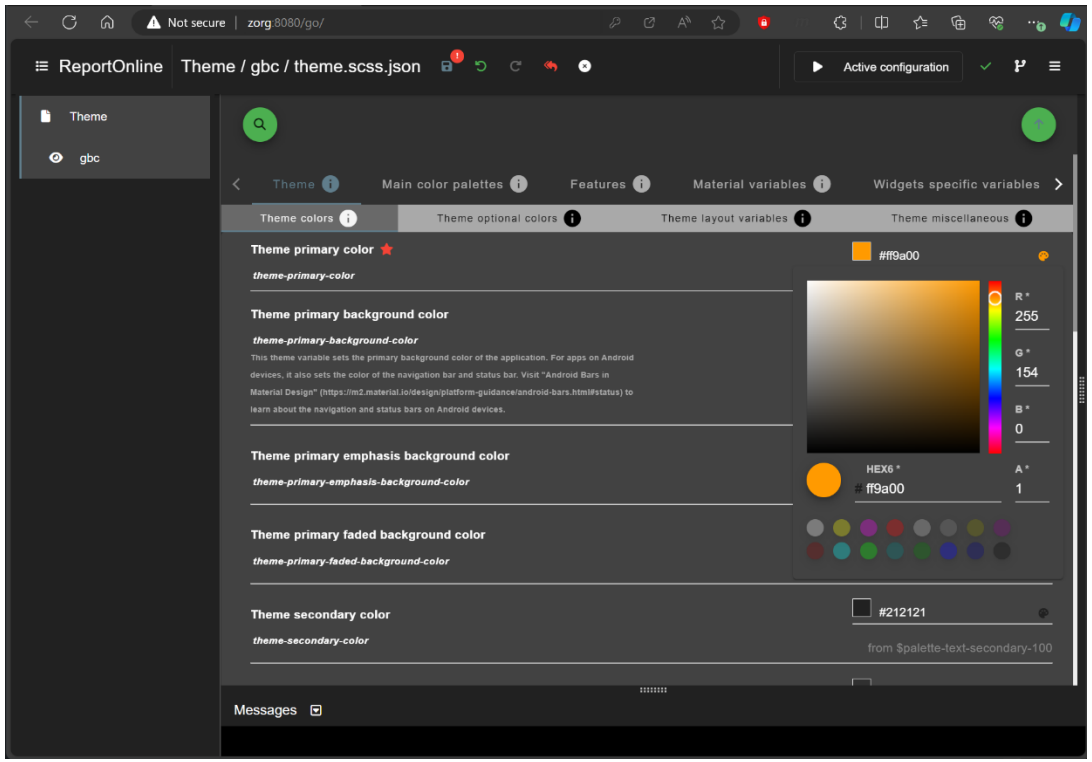
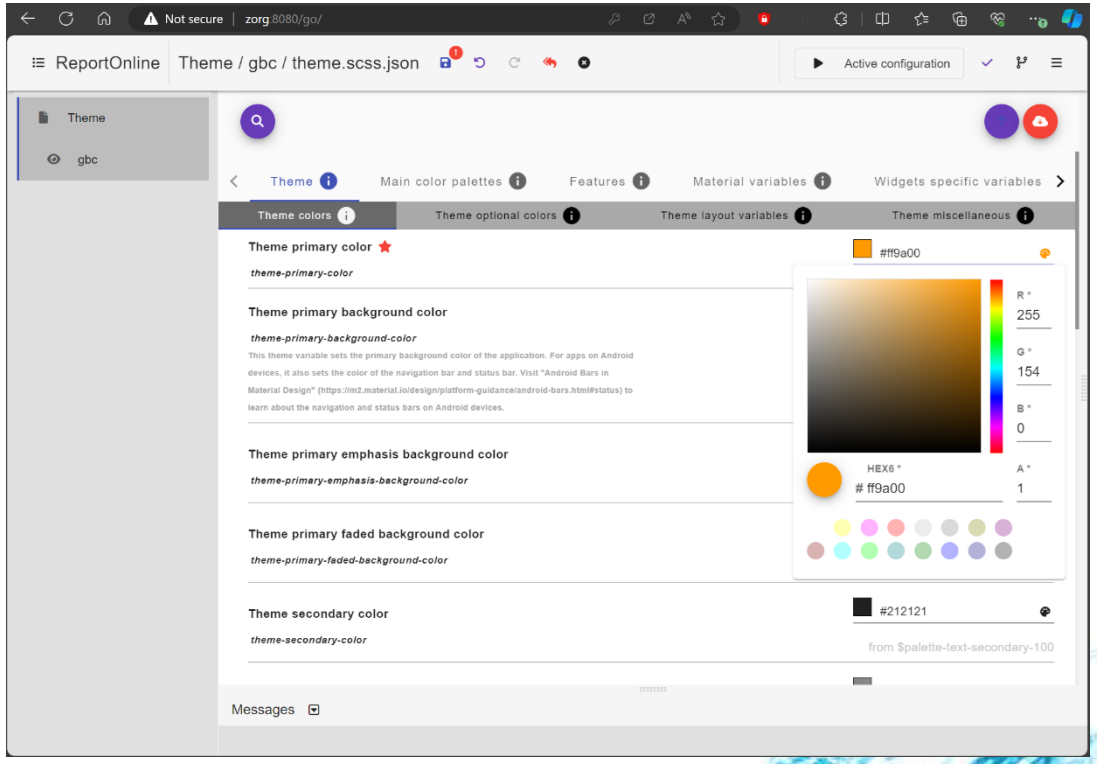
Theme customizer

- **Online theme customizer.**





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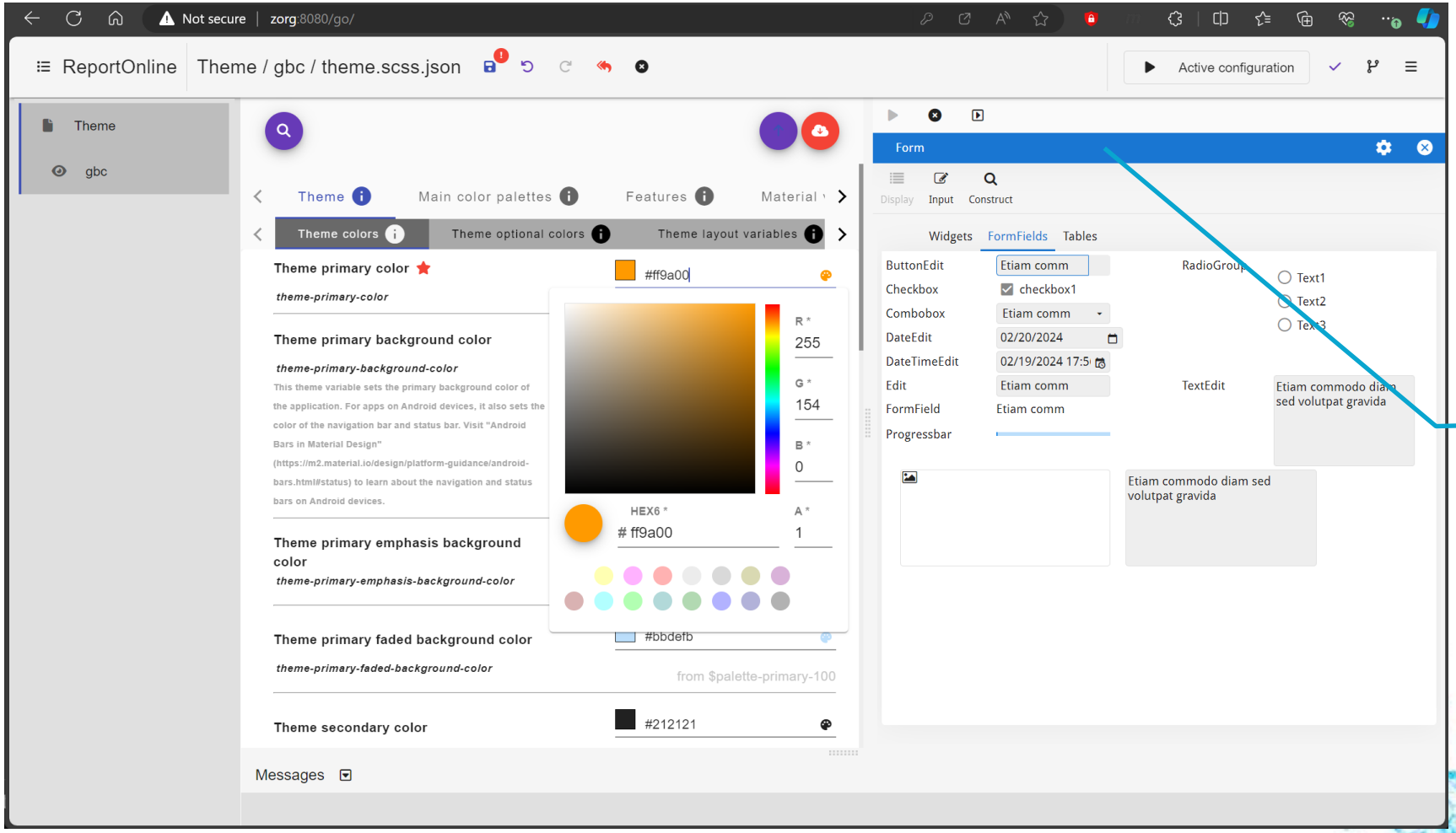
Theme customizer



Form Preview

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GWA & DB SYNC.

GENERO WEB APPS & DATABASE SYNCHRONIZATION SERVICE

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Genero Web apps (GWA)

- **Offline micro-web apps that run in a browser,**
  - Runtime and SQLite database offline in the browser.
- **Ability to connect to the server.**
  - via REST web services,
  - via REST database synchronization service,
  - via “runOnServer” Front Call: Execute server-side code with remote display.

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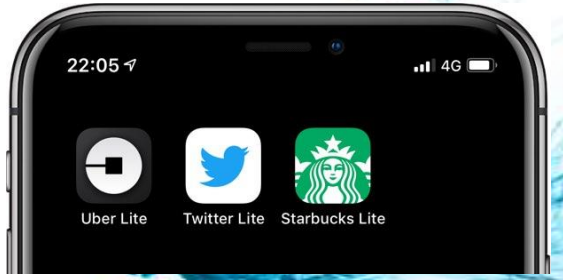
Genero Web apps (GWA)

- **Use cases,**
  - High scalability: offline workload in the browser,
    - No permanent server connection,
    - Example: offline ordering to the server when local data entry is completed.
  - High reliability: resilience to connection outage,
    - Example: POS (Point Of Sale) entering data locally until connection recovery.
  - Offline use: use app even when disconnected,
    - Example 1: metro app that can be used when underground,
    - Example 2: delivery app working in no-internet zones.
- **Benefits.**
  - Deliver apps from web site rather than app stores (eliminate rejection risk & delays),
  - Desktop & Web support (all platforms including Web books) in addition to iOS, Android,
  - Appears as a standard native platform app.



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DB Sync – offline apps

- **High level database synchronization Web service,**
  - Configure what to synchronize via "DB Sync admin" application,
  - DB Sync synchronization API.
- **Synchronization features.**
  - Read from server database with data filtering,
    - Select database tables to synchronize,
    - Apply filters to data (restrict data by user…).
  - Write to server database strategies per table:
    - Concurrent inserts/updates/deletes may conflict! Optimistic locking applies,
    - Use filters to avoid conflicts (e.g., modification exclusive to owner),
    - No write for read-only data or bespoke write logic (e.g. Web services).

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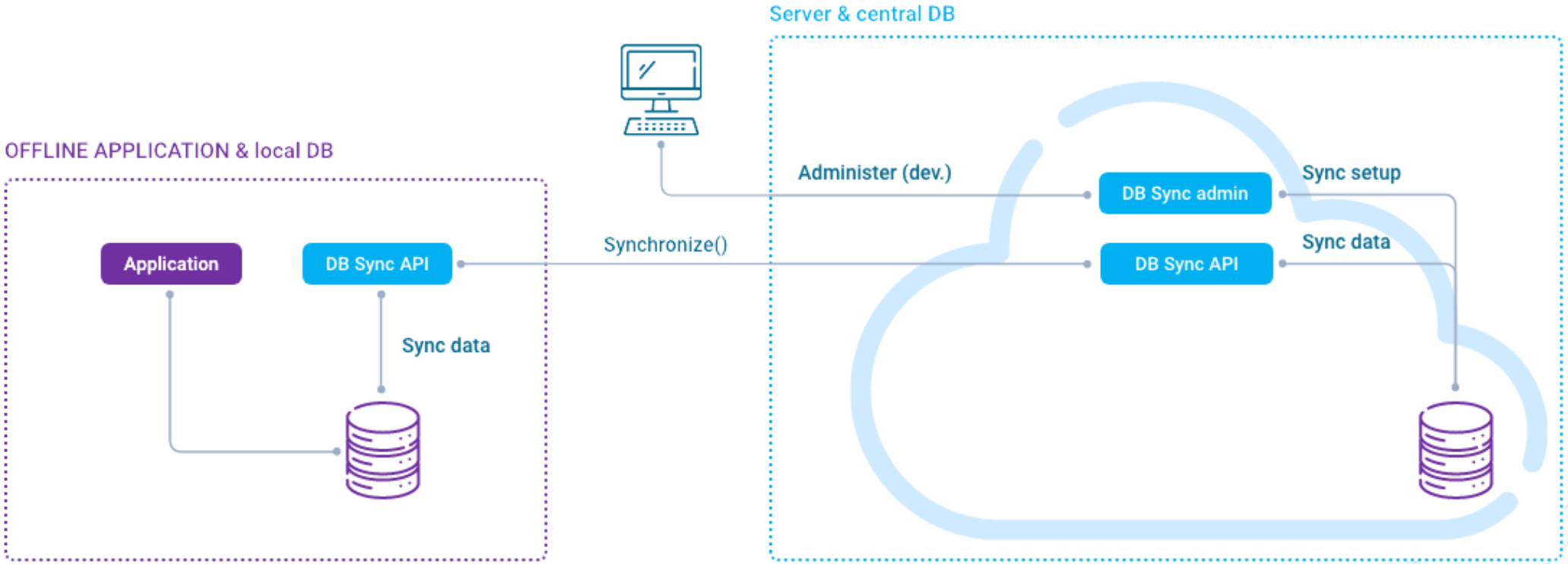
DB Sync (offline apps)



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GENERO VNEXT

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GENERO GUI

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Beautiful themes, better look & feel

- **Provide great visual experience out-of-box,**
  - Default GUI review by a web designer.
- **Enhance rendering of some widgets,**
  - Visual Feedback for touch devices (e.g. button pushed),
  - Stretchable ScrollGrid as a card view,
  - Distinct visuals of read only view and editable view.

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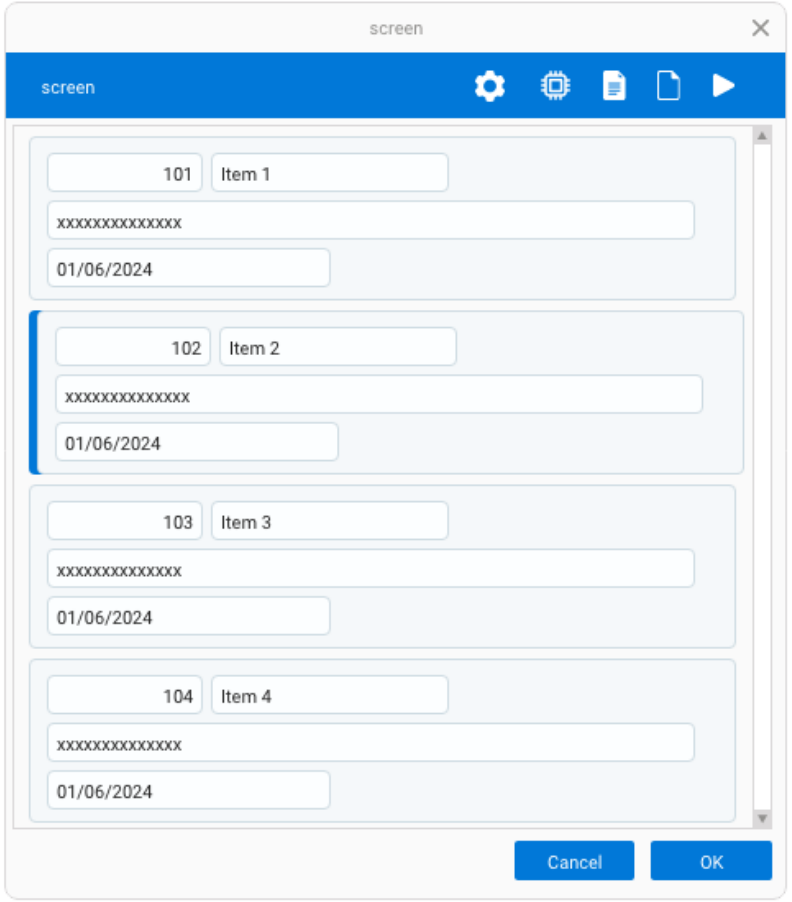
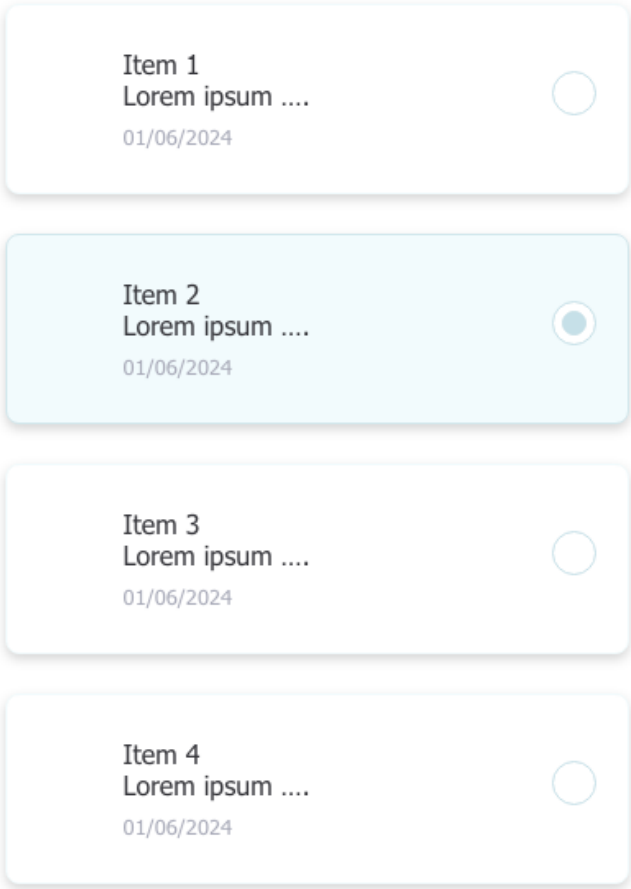
Beautiful themes, better L&F





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Mobile: improved UX on small devices

- **Better UX for responsive applications when used on mobile device,**
  - Applies to web applications (run in browser) on various devices and packaged apps for iOS (IPA) and Android (APK).
- **Components impacted by UX review.**
  - Chromebar design (actions back, OK…),
  - Multi-row selection,
  - Drag & drop,
  - Table manipulations (e.g. moving columns).

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Smarter Web apps

- **Eliminate need wherever possible for Genero Desktop Client,**
- **Front-end specific features provided in Genero Browser Client.**
  - Front Call: local notification support…

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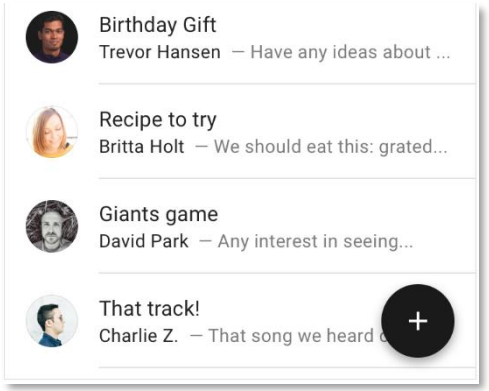
New Widgets

- **Premium widget pack.**
  - Chat component to display conversations,
  - Multi-field edit,
  - Circular image,
  - Bar Code scanner specific widget,
  - FAB – Floating Action Button,
  - Star Rating widget.



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LANGUAGE & INFRASTRUCTURE

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Logging, monitoring and observability

- **Logging / monitoring: manage and secure cloud deployment,**
  - Consistent and centralized server-side logging,
  - Monitoring capabilities and metrics for:
    - Application server,
    - DVM,
    - Report Engine,
  - Integrate industry standard monitoring console.
- **Observability: metrics of application usage to improve the application.**
  - Provide observability at the level of the:
    - Application,
    - Form,
    - Dialog,
    - Action,
    - Per user session.

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Authentication delegation

- **Delegate authentication to major authentication providers,**
  - AWS Cognito,
  - Microsoft Identity (aka. MS Active Directory)…
- **Support Application Load Balancer (ALB) authentication delegation.**

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REST OpenAPI full support

- **Support additional OpenAPI attributes.**
  - AllOf,
  - AnyOf,
  - Patterns for allowed values,
  - Enums,
  - Comments (function summary, tags).

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REPORT WRITER

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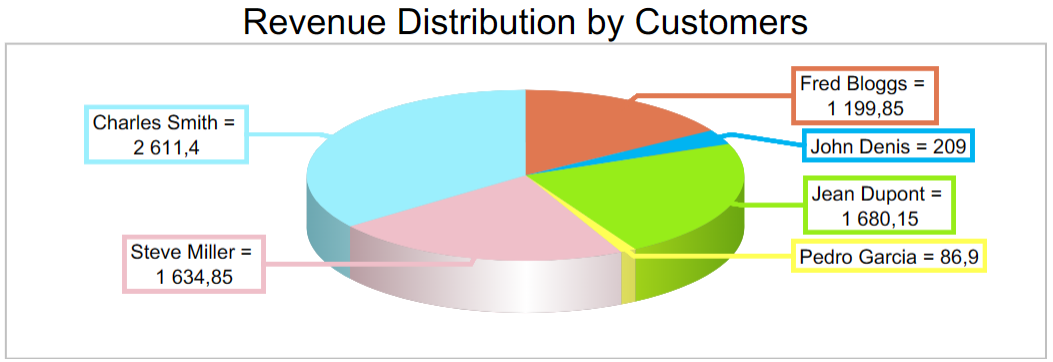
Report Writer

- **New smart Tables**
  - Auto column/row size computation depending on data,
  - Row span: avoid repeating identical values.
- **Top N%**
  - Filter/Display only Top N% values,
  - Applies to.
    - Data transformations (.RST): Filter incoming data source,
    - Charts/Pivot tables: Filter displayed values.



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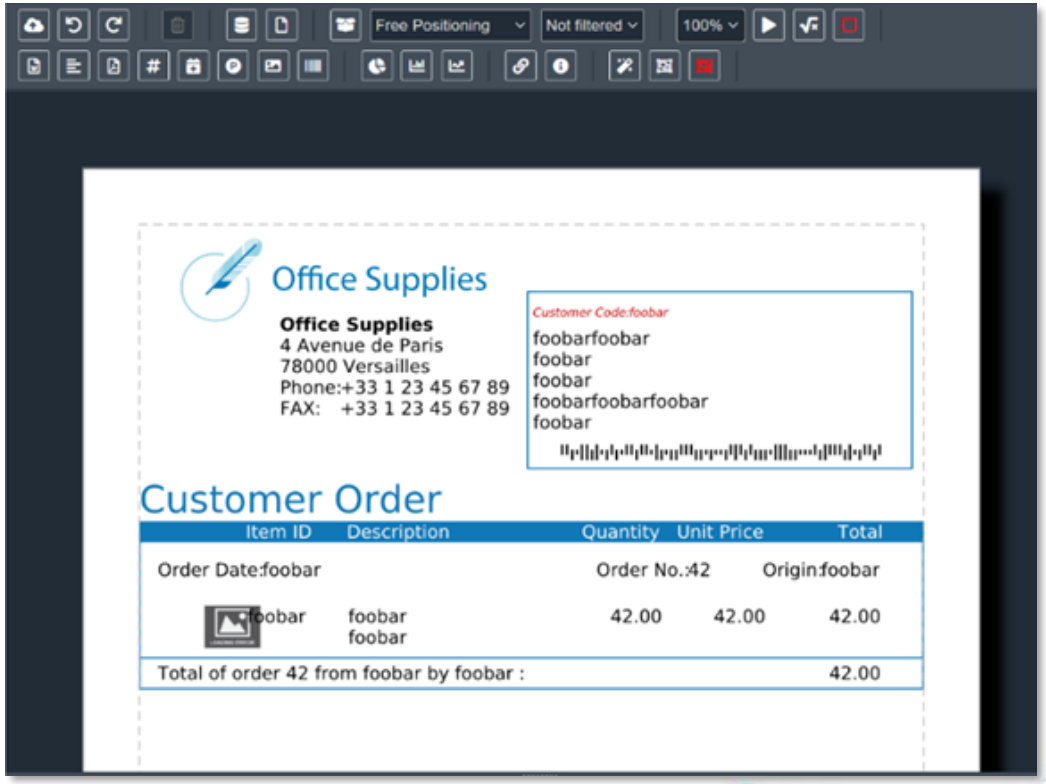
Report Writer

- **SaaS Designer.**
  - Online simplified SaaS designer.



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AI

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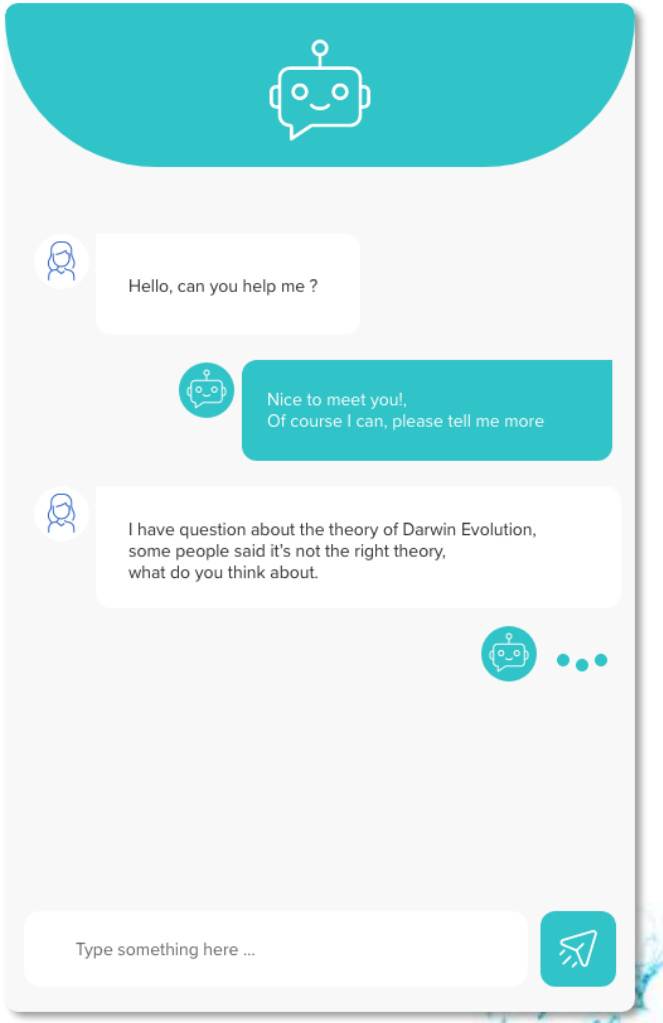
AI

- **Conversational UI (chat),**
- **Chatbot documentation search.**
  - Conversational based on Gen AI.



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GENERO VNEXT+

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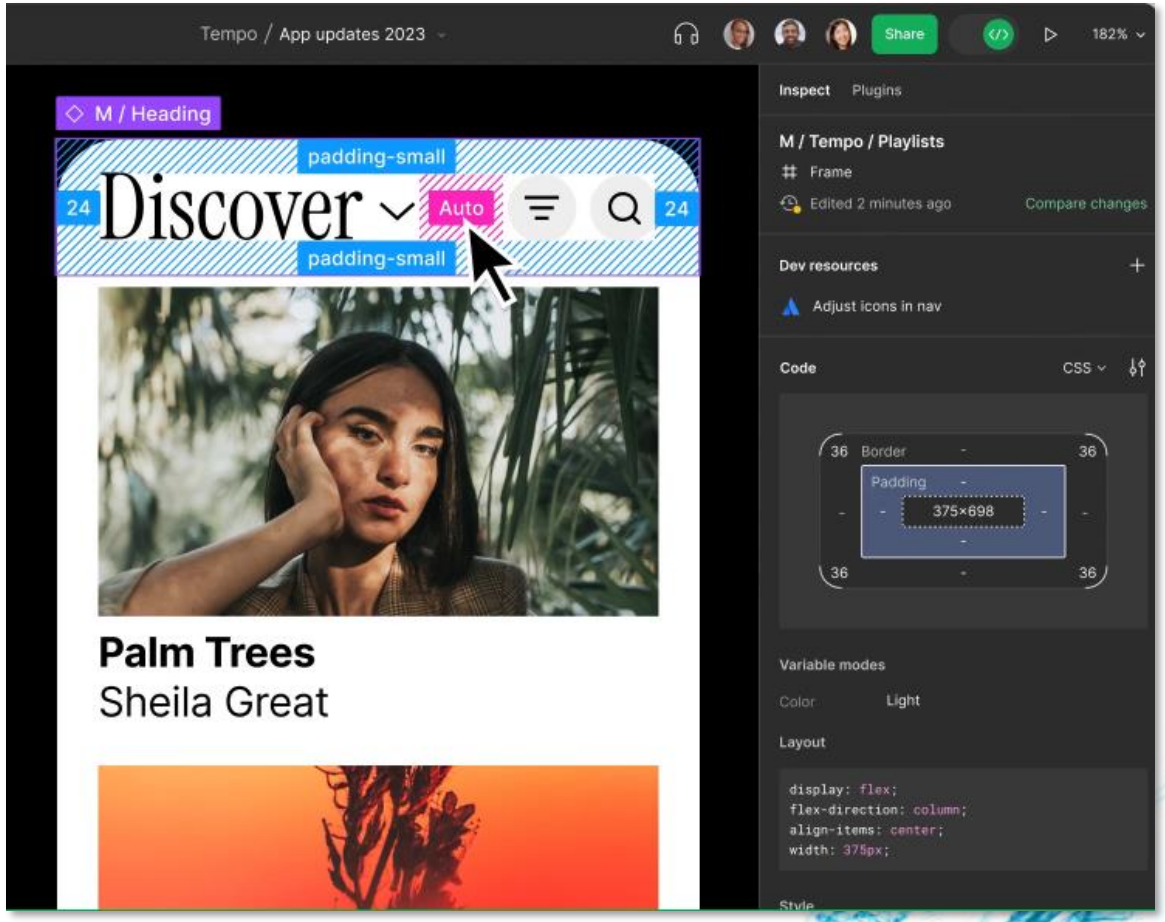
Advanced GUI

- **Pixels perfect layout (PPL),**
- **Figma design**
  - Generate forms from Figma®



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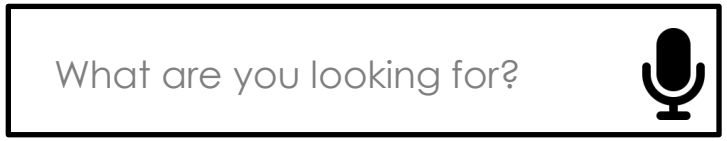
AI

- **Streamed voice input,**
- **AI search widget (CONSTRUCT),**
- **Code generation,**
  - SQL dataset,
  - DB schema,
  - Form,
  - Report.
- **BDL coding assistants.**
  - Completion, correction, commenting, etc.



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Q&A

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