

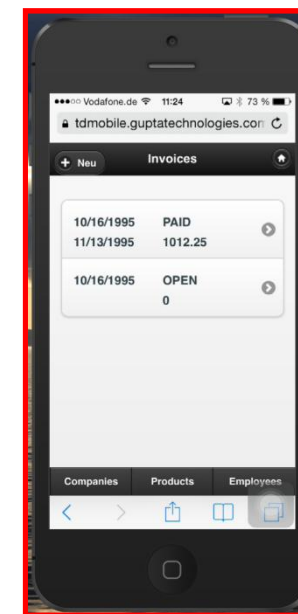
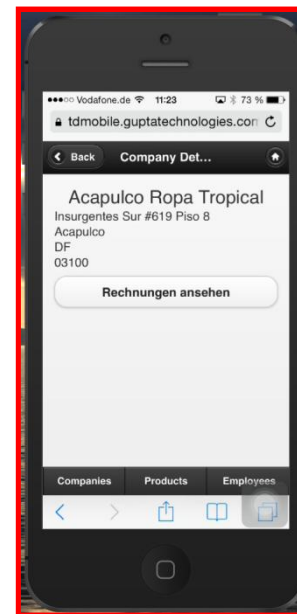
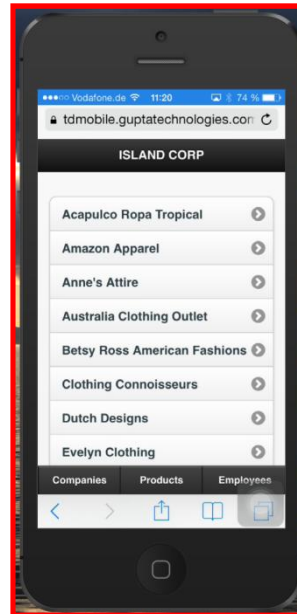
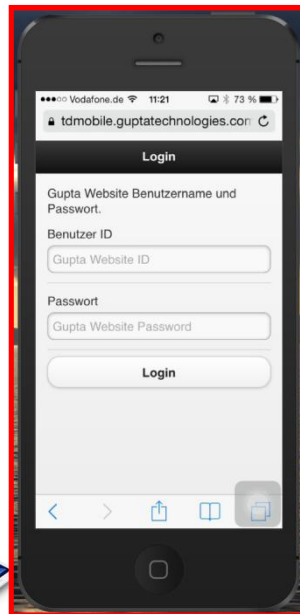
TD Mobile Ein Beispiel

Helmut Reimann



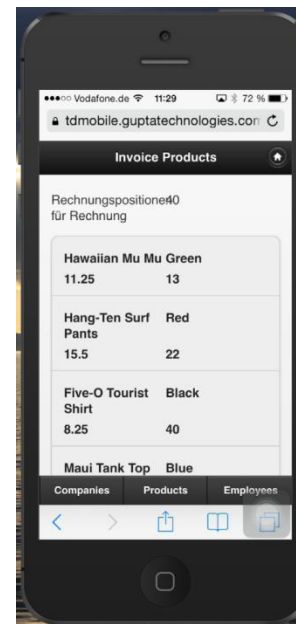
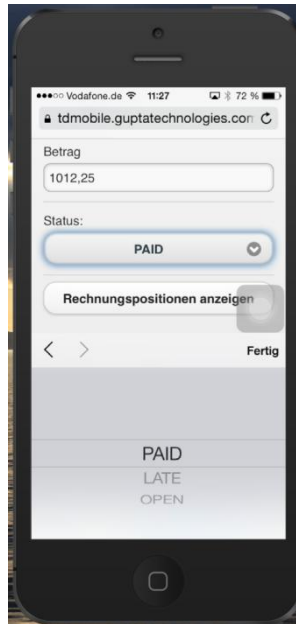
TD Mobile Beispiel

- Demo Anwendung "Island": Company



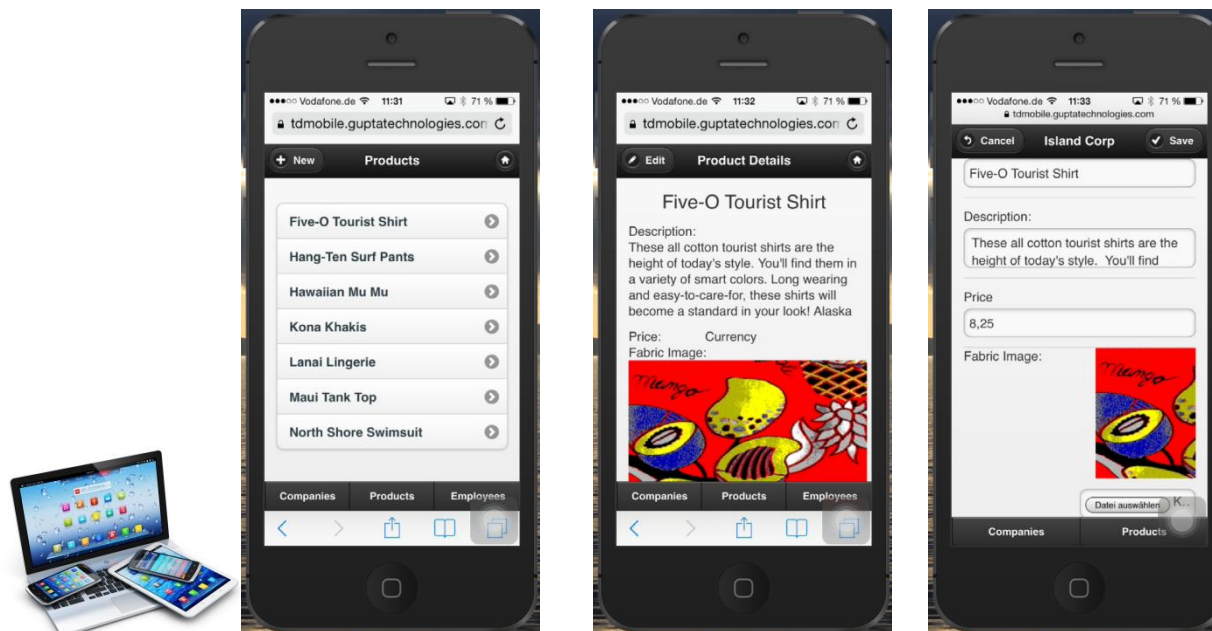
TD Mobile Beispiel

- Demo Anwendung „Island“: Company



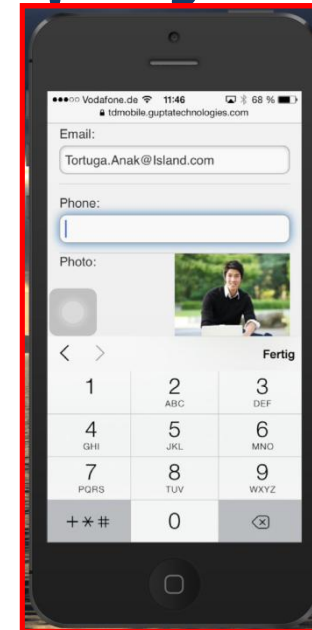
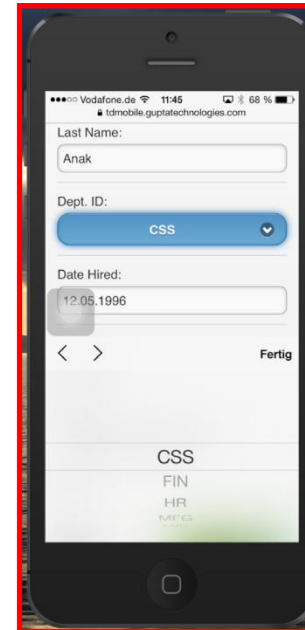
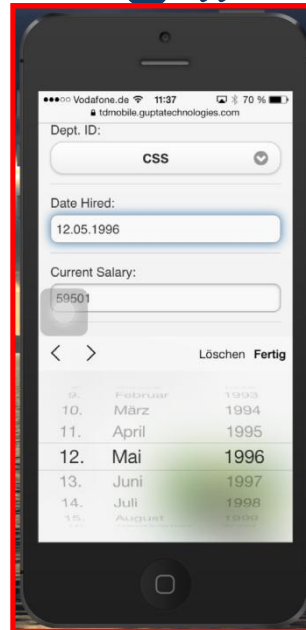
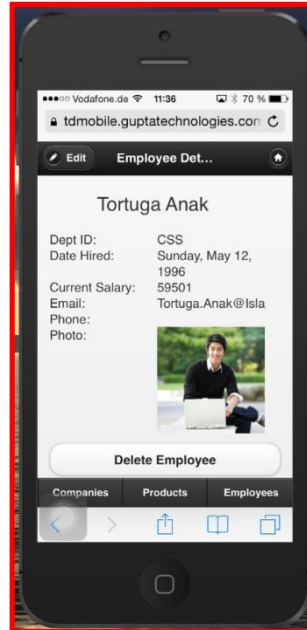
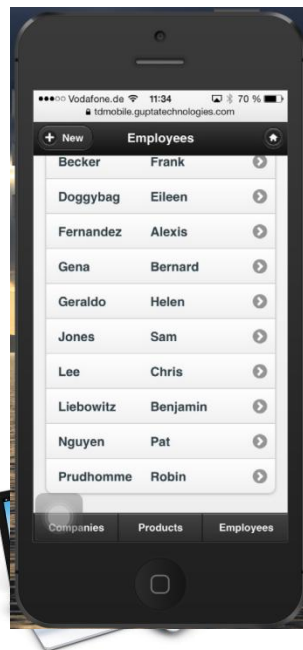
TD Mobile Beispiel

- Demo Anwendung „Island“: Product



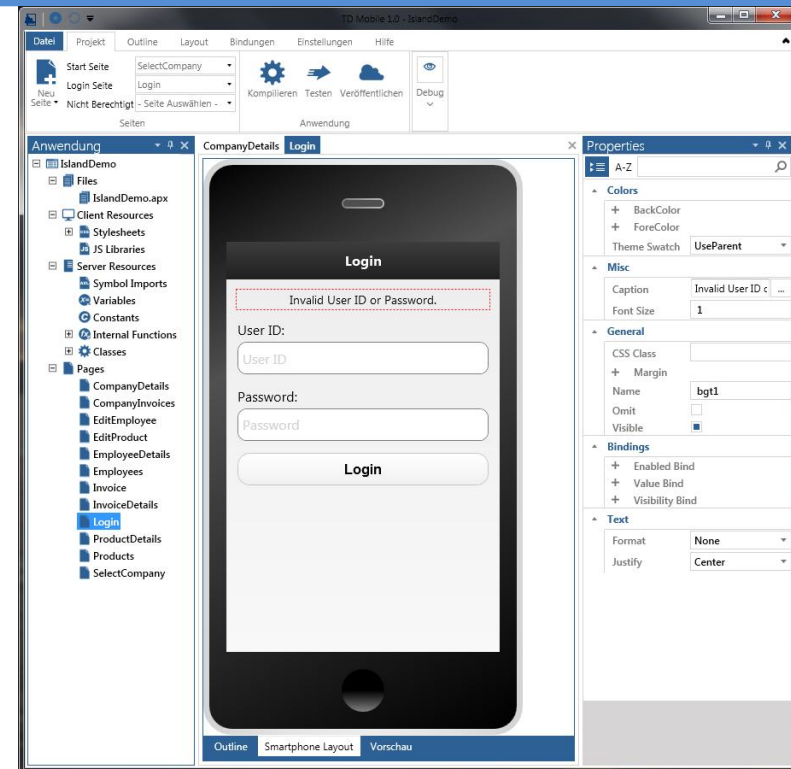
TD Mobile Beispiel

- Demo Anwendung „Island“: Employee



TD Mobile

- TD Mobile
 - Anwendungsstruktur
 - 12 Pages
 - Stylesheet
 - Klassen
 - Nur für Bindings
 - Funktionen



TD Mobile

- Externes Stylesheet



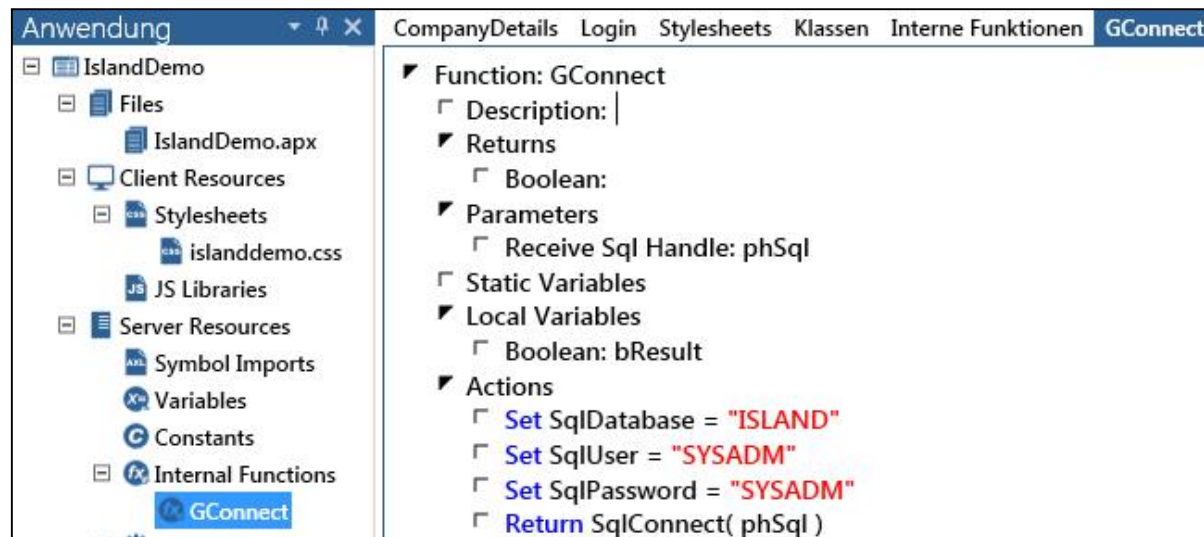
islanddemo	11/8/2013 11:45 AM	Kaskadierendes Stylesheet-Dokument
jquery.mobile.flatui	9/28/2013 11:33 PM	Kaskadierendes Stylesheet-Dokument
td	11/12/2013 8:01 PM	Kaskadierendes Stylesheet-Dokument

```
.smallpic {  
    width:200px;  
}  
  
.bigpic {  
    width:300px;  
}
```



TD Mobile

- Interne Funktion:



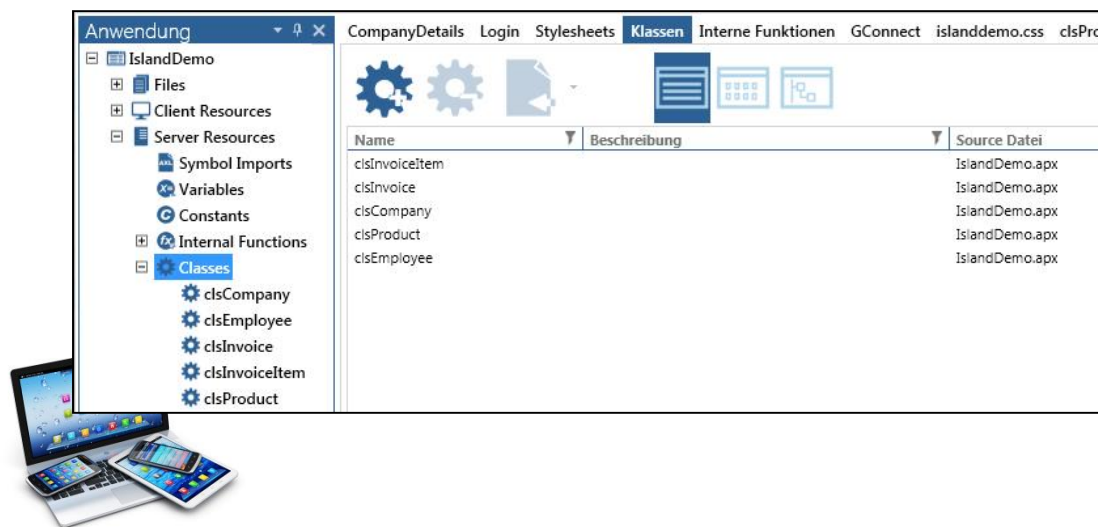
The screenshot displays a development environment window titled 'Anwendung' with several tabs: 'CompanyDetails', 'Login', 'Stylesheets', 'Klassen', 'Interne Funktionen', and 'GConnect'. The left sidebar shows a project tree for 'IslandDemo' with folders for 'Files', 'Client Resources', 'Server Resources', and 'Internal Functions'. The 'Internal Functions' folder is expanded, showing the 'GConnect' function. The right pane shows the details for the 'GConnect' function:

- Function: GConnect
- Description: |
- Returns
 - Boolean:
- Parameters
 - Receive Sql Handle: phSql
- Static Variables
- Local Variables
 - Boolean: bResult
- Actions
 - Set SqlDatabase = "ISLAND"
 - Set SqlUser = "SYSADM"
 - Set SqlPassword = "SYSADM"
 - Return SqlConnect(phSql)



TD Mobile

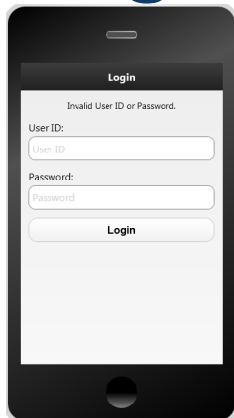
- **Interne Klassen: Für „Bindings“**
 - **Option: Einbinden einer TD APL**



▼ Functional Class: clsCompany
└ Description:
└ Derived From
▼ Instance Variables
└ String: Name
└ Number: ID
└ String: Address
└ String: City
└ String: State
└ String: Zip
└ Functions

TD Mobile

• Login:



- Web Page: Login
 - Description: |
 - Client
 - Menu
 - Contents
 - Bindings
 - Functions
 - Parameters
 - Page Events
 - Server
 - Functions
 - Operations

Outline

- Client
 - Menu
 - Contents
 - Background Text: bgt1
 - Data Field: dfUserID
 - Data Field: dfPassword
 - Pushbutton: pbLogin
 - Bindings
 - String: PASSWORD
 - String: USER_ID
 - Boolean: LOGIN_STATUS
 - Functions
 - Parameters
 - Page Events
 - On Create
 - Set: LOGIN_STATUS TRUE

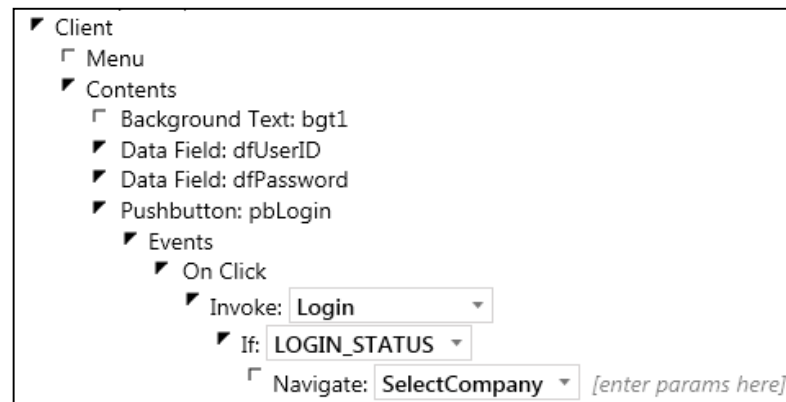
Client - Teil

- Server
 - Functions
 - Function: CheckForPhoneColumn
 - Operations
 - Operation: Login
 - Description:
 - Parameters
 - String: psUserID
 - Binding: USER_ID
 - String: psPassword
 - Binding: PASSWORD
 - Returns
 - Boolean:
 - Binding: LOGIN_STATUS
 - Local Variables
 - Actions
 - If psUserID = ""
 - Return FALSE
 - If psPassword = ""
 - Return FALSE
 - Call SalWebLogin(psUserID, userRoles)
 - Call CheckForPhoneColumn()
 - Return TRUE

Server – Teil
Cookie setzen mit
SalWebLogin()

TD Mobile

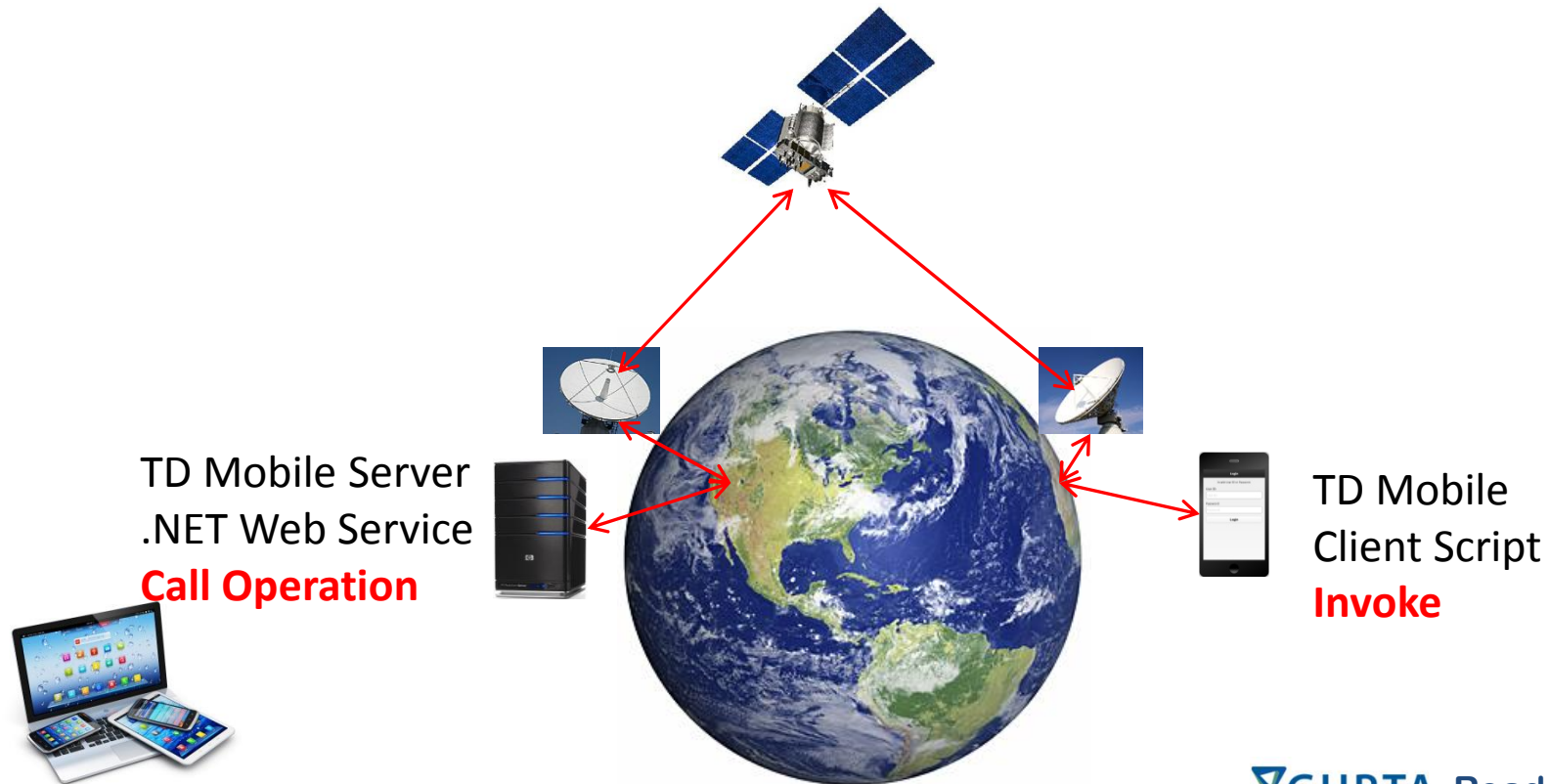
- **Login:**



pbLogin Script

Achtung: Asynchroner Ablauf

TD Mobile



TD Mobile

• Company Liste:



General

CSS Class

+ Margin

Name:

Omit:

Visible:

Bindings

+ Enabled Bind

- List Source Bind

Path:

- Value Bind

Direction:

Path:

+ Visibility Bind

List View

Web Page: SelectCompany

Description: |

Client

Menu

Contents

Background Text: bkgdCompanyName

cListView: Itv1

Navigation Bar: nav1

Pushbutton: pbProducts

Pushbutton: pbCompanies

Pushbutton: pbGotoEmployees

Bindings

clsCompany: COMPANIES[*]

String: Name

Number: ID

String: Address

String: City

String: State

String: Zip

clsCompany: COMPANY

String: Name

Number: ID

String: Address

String: City

String: State

String: Zip

Functions

Parameters

Page Events

Outline

Client

Menu

Contents

Background Text: bkgdCompanyName

cListView: Itv1

Events

On Click

Navigate: COMPANY.ID

Navigation in der ListView
Parameterübergabe an nächste Page

Server

Functions

Operations

Operation: GetCompanies

Description:

Parameters

Returns

clsCompany: [*]

Binding:

Local Variables

Actions

If GConnect(hSql)

If SqlPrepareAndExecute(hSql, "select company_id,

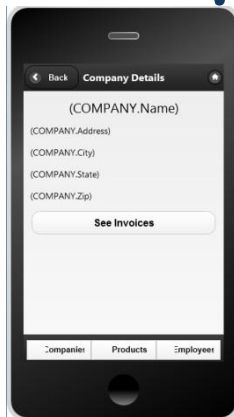
Call SqlDisconnect(hSql)

Return objCompanies

Operation zum füllen der ListView

TD Mobile

- **Company Details:**



```
Client
├── Menu
├── Contents
├── Bindings
│   ├── clsCompany: COMPANY
│   │   ├── String: Zip
│   │   ├── String: State
│   │   ├── String: City
│   │   ├── String: Address
│   │   ├── Number: ID
│   │   └── String: Name
├── Functions
├── Parameters
│   └── Number: COMPANY_ID
├── Page Events
│   └── On Create
│       └── Invoke: GetCompanyDetails
```

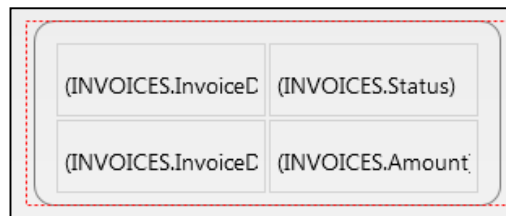
Client Code

```
Server
├── Functions
├── Operations
│   └── Operation: GetCompanyDetails
│       ├── Description:
│       ├── Parameters
│       │   └── Number: pnID
│       │       └── Binding: COMPANY_ID
│       ├── Returns
│       │   └── clsCompany:
│       │       └── Binding: COMPANY
│       ├── Local Variables
│       └── Actions
│           └── If GConnect( hSql )
│               ├── If SqlPrepareAndExecute( hSql, "SELECT COMPANY_ID,
│               ├── Call SqlDisconnect( hSql )
│               └── Return objCompany
```

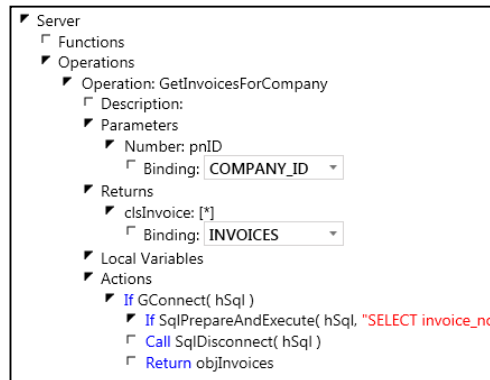
Operation

TD Mobile

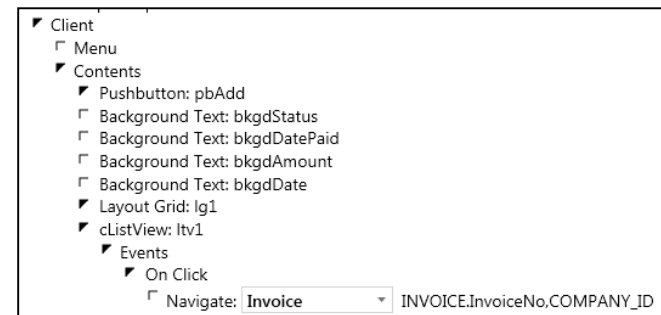
• Invoice:



ListView mit LayoutGrid und Textfelder



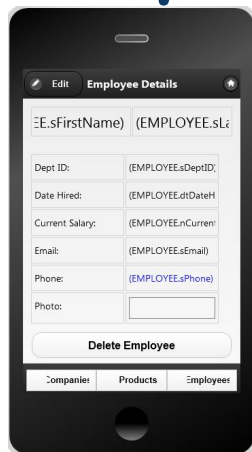
Operation zum Befüllen der Listview



ListView: Navigation mit Übergabe von Paramtern

TD Mobile

- Employee Details:



Dept ID:	(EMPLOYEE.sDeptID)
Date Hired:	(EMPLOYEE.dtDateH
Current Salary:	(EMPLOYEE.nCurrent
Email:	(EMPLOYEE.sEmail)
Phone:	(EMPLOYEE.sPhone)
Photo:	

LayoutGrid mit Textfelder
und Labeln

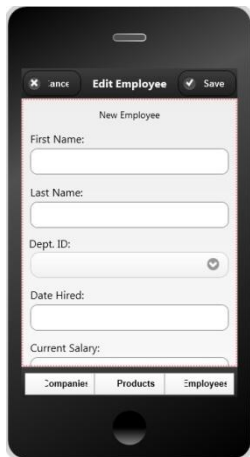
{EMPLOYEE.dtDateH

Textfeld mit
Format

Bindings	
+ Enabled Bind	
- Value Bind	
Direction	Get
Path	EMPLOYEE.dtDateHired
+ Visibility Bind	
Text	
Format	LongDate
Justify	Left

TD Mobile

- **Edit Employee:**



- Client
 - Menu
 - Contents
 - Data Field: dfFirstName
 - Data Field: dfLastName
 - Data Field: dfDateHired
 - Pushbutton: pbSave
 - Pushbutton: pbCancel
 - Combo Box: cmbDeptID
 - Data Field: dfEmail
 - Data Field: dfCurrentSalary
 - Layout Grid: lg1
 - Background Text: bgt1
 - Picture: imgPhoto
 - Data Field: df1

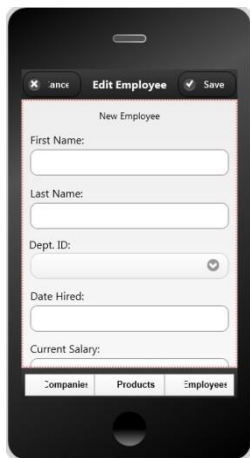
Objekte auf der Page
(Ausser Navigation)

Bindings	
+ Enabled Bind	
- Value Bind	
Direction	GetSet
Path	EMPLOYEE.dtDateHired
+ Visibility Bind	
Data Field	
Hint Text	
Input Type	Date
Justify	Left
Multi-Line	<input type="checkbox"/>
Read Only	<input type="checkbox"/>
Show Clear Buttc	<input type="checkbox"/>

Eigenschaft „Date“

TD Mobile

• Edit Employee:



- Client
 - Menu
 - Contents
 - Data Field: dfFirstName
 - Data Field: dfLastName
 - Data Field: dfDateHired
 - Pushbutton: pbSave
 - Pushbutton: pbCancel
 - Combo Box: cmbDeptID
 - Data Field: dfEmail
 - Data Field: dfCurrentSalary
 - Layout Grid: lg1
 - Background Text: bgt1
 - Picture: imgPhoto
 - Data Field: df1

Objekte auf der Page
(Ausser Navigation)

Bindings

- Enabled Bind
- Value Bind
 - Direction: GetSet
 - Path: EMPLOYEE.sEmail
- Visibility Bind

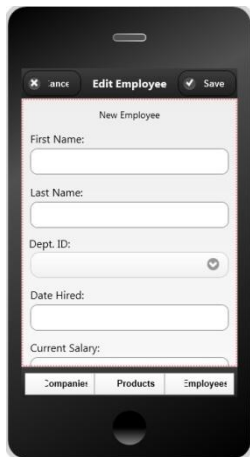
Data Field

- Hint Text
- Input Type: Email
- Justify: Left
- Multi-Line
- Read Only
- Show Clear Butt

Eigenschaft „Email“

TD Mobile

• Edit Employee:



- Client
 - Menu
 - Contents
 - Data Field: dfFirstName
 - Data Field: dfLastName
 - Data Field: dfDateHired
 - Pushbutton: pbSave
 - Pushbutton: pbCancel
 - Combo Box: cmbDeptID
 - Data Field: dfEmail
 - Data Field: dfCurrentSalary
 - Layout Grid: lg1
 - Background Text: bgt1
 - Picture: imgPhoto
 - Data Field: df1

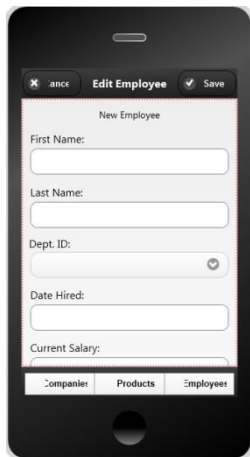
Objekte auf der Page
(Ausser Navigation)

▲ Bindings	
+ Enabled Bind	
- Value Bind	
Direction	GetSet
Path	EMPLOYEE.nCurrentSalari
+ Visibility Bind	
▲ Data Field	
Hint Text	
Input Type	Number
Justify	Left
Multi-Line	<input type="checkbox"/>
Read Only	<input type="checkbox"/>
Show Clear Buttc	<input type="checkbox"/>

Eigenschaft „Number“

TD Mobile

- **Edit Employee:**



- ✔ Picture: imgPhoto
- ✔ Data Field: df1
- ✔ Navigation Bar: nav1
- ✔ Pushbutton: pbCompanies
- ✔ Pushbutton: pbProducts
- ✔ Pushbutton: pbEmployees
- ✔ Data Field: dfPhone
- ☐ Background Text: bgt2

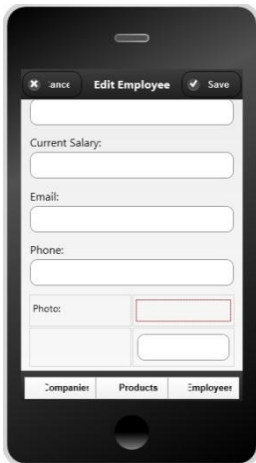
Objekte auf der Page

Bindings	
+ Enabled Bind	
- Value Bind	
Direction	GetSet
Path	EMPLOYEE.sPhone
+ Visibility Bind	
Data Field	
Hint Text	
Input Type	Tel
Justify	Left
Multi-Line	<input type="checkbox"/>
Read Only	<input type="checkbox"/>
Show Clear Buttc	<input type="checkbox"/>

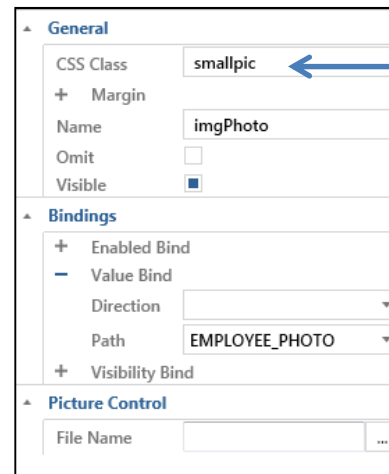
Eigenschaft „Tel“

TD Mobile

- Edit Employee: „Photo“



Picture Objekt

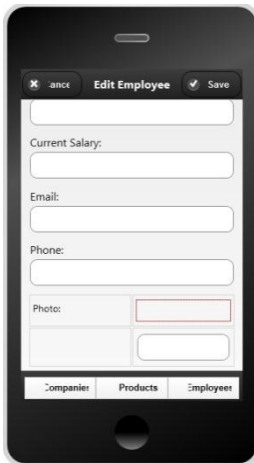


Aus CSS File

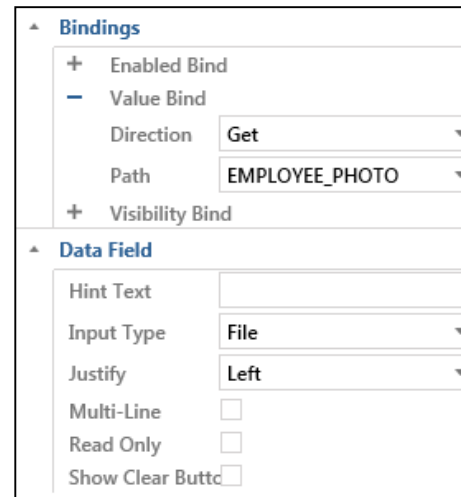
Eigenschaft „Bild“

TD Mobile

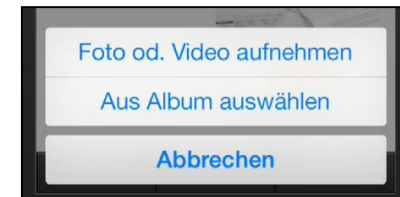
- Edit Employee: „Photo“



Datenfeld (Öffnen eines Bildes)



Datenfeld „Input Type“ = File

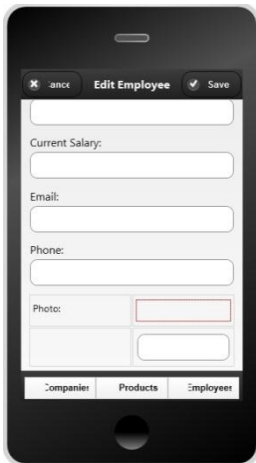


Zur Laufzeit



TD Mobile

- **Edit Employee:**



```
└─ Bindings
  └─ clsEmployee: EMPLOYEE
    └─ String: sPhone
    └─ String: nID
    └─ String: sFirstName
    └─ String: sLastName
    └─ String: sDeptID
    └─ Date/Time: dtDateHired
    └─ Number: nCurrentSalary
    └─ String: sEmail
    └─ Binary: binPhoto
  └─ Boolean: SAVESTATUS
  └─ Binary: EMPLOYEE_PHOTO
```

Bindings

```
└─ Pushbutton: pbSave
  └─ Events
    └─ On Click
      └─ Invoke: SaveChanges
        └─ If: SAVESTATUS
          └─ Navigate: Employees [enter params here]
```

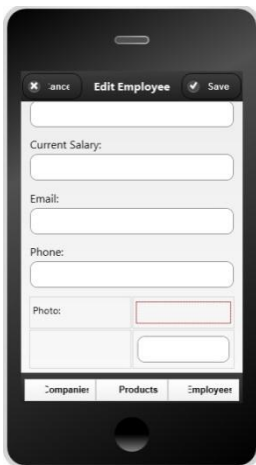
Speichern der Daten

```
└─ Parameters
  └─ String: EMPLOYEE_ID
└─ Page Events
  └─ On Create
    └─ Invoke: GetEmployeeDetails
```

Page Events & Parameter

TD Mobile

• Edit Employee:



```
Operation: SaveChanges
  Description:
  Parameters
    clsEmployee: pObjEmployee
      Binding: EMPLOYEE
    Binary: pbinPhoto
      Binding: EMPLOYEE_PHOTO
  Returns
    Boolean:
      Binding: SAVESTATUS
  Local Variables
  Actions
    Set bStatus = FALSE
    If GConnect( hSql )
      ! New employee?
      If pObjEmployee.nID = ""
        Else
      Call SqlDisconnect( hSql )
    Return bStatus
```

Speichern der Daten

```
Operation: GetEmployeePhoto
  Description:
  Parameters
    String: psID
      Binding: EMPLOYEE_ID
  Returns
    Binary:
      Binding: EMPLOYEE_PHOTO
  Local Variables
  Actions
    If GConnect( hSql )
      If SqlPrepareAndExecute( hSql, "SELECT photo INTO :binPhoto FROM ..." )
        Call SqlFetchNext( hSql, nInd )
      Call SqlDisconnect( hSql )
    Return binPhoto
```

Foto aus der Datenbank

Speichern der Daten

TD Mobile

- TD Mobile Java Interface
 - Setzen eines Browser Typs:



„Schalter“



General	
Caption	Tablet
CSS Class	
+ Margin	
Name	Ink2
Omit	<input type="checkbox"/>
Misc	
Justify	Left
Link	
Link Type	Web
Link URL	javascript:Td.Util.setDisplay("t")
Bindings	
+ Value Bind	
+ Visibility Bind	

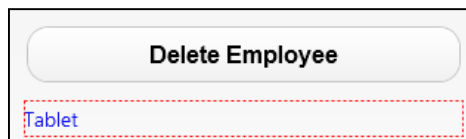
Link ruft ein TD Mobile Java Funktion auf

EmployeeDetails.p	11/8/2013 4:02 PM	HTML-Dokument
EmployeeDetails.t	11/8/2013 4:02 PM	HTML-Dokument

„t“ = Tablet – „p“ = Phone

TD Mobile

- TD Mobile Java Interface
 - Setzen eines Browser Typs:



„Schalter“



General	
Caption	Tablet
CSS Class	
+ Margin	
Name	Ink2
Omit	<input type="checkbox"/>
Misc	
Justify	Left
Link	
Link Type	Web
Link URL	javascript:Td.Util.setDisplay("t")
Bindings	
+ Value Bind	
+ Visibility Bind	

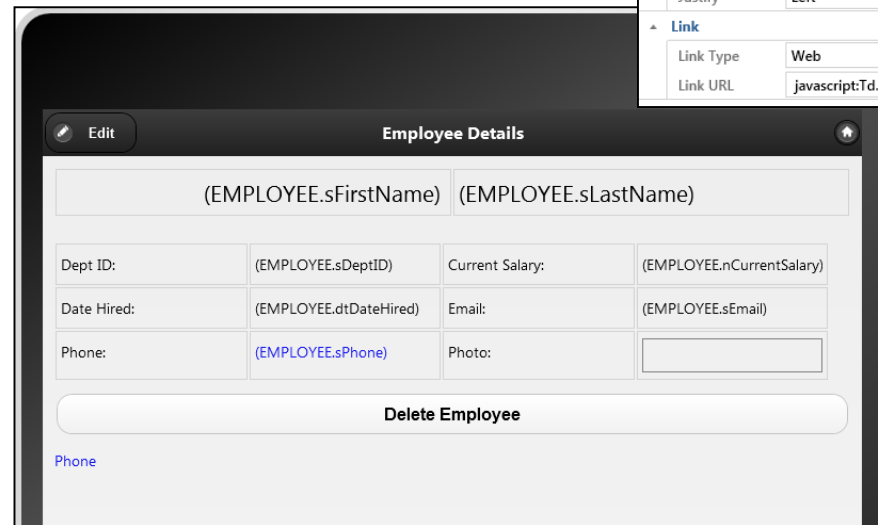
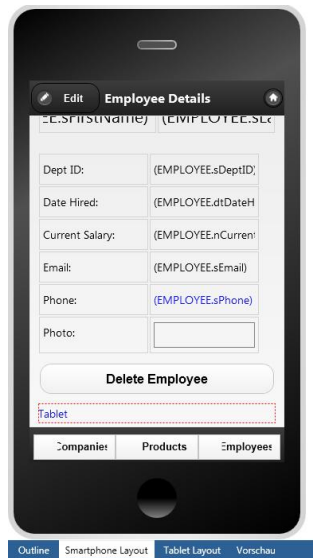
Link ruft ein TD Mobile Java Funktion auf

EmployeeDetails.p	11/8/2013 4:02 PM	HTML-Dokument
EmployeeDetails.t	11/8/2013 4:02 PM	HTML-Dokument

„t“ = Tablet – „p“ = Phone

TD Mobile

- TD Mobile Java Interface
 - Beispiel: Setzen eines Browser Typs:



General	
Caption	Phone
CSS Class	
+ Margin	
Name	Ink2
Omit	<input type="checkbox"/>
Misc	
Justify	Left
Link	
Link Type	Web
Link URL	javascript:Td.Util.setDisplay("p")

TD Mobile

- **Option:**
 - **Globale Variablen anstatt Parameterlisten**
 - **Pro:**
 - State Management wird auf dem Server ausgeführt
 - Keine Parameterlisten, einfache Handhabung
 - **Cons:**
 - Beim Seitenwechsel muss immer eine Operation ausgeführt werden, damit Daten angezeigt werden können.
 - Parameterlisten können direkt von Bindings in Objekte geladen werden.



TD Mobile

- **Option:**
 - **Web Seiten Entwicklung mit TD Mobile**
 - Unterschiedliche Layouts für Smart Devices
 - Anwendungen und Web Seiten
 - Unterschiedliche Inhalte / Aussehen / Funktionalität
 - Unterschiedliche Stylesheets
 - ...



TD Mobile

- Zum Schluss...
 - Änderungshistorie:



IslandDemo.apx
Path: D:\Roadshow_2013\Island\
Created: 11/13/2013 1:34:10 PM Last Change: 11/13/2013 2:09:57 PM

Library Status
Library contains modifications.
Click Save to save changes or Discard to revert changes

Save Discard

Current Modifications

- editEmployee
 - Contents
 - dfFirstName
 - cmbDeptID
 - bgI2
 - Bindings
 - EMPLOYEE
 - EMPLOYEE_PHOTO
 - Login
 - Bindings
 - USER_ID
 - LOGIN_STATUS
 - CompanyInvoices

Change History

Track Changes Prompt for Description

11/13/2013 2:09 PM: Helmut -
9/27/2013 6:30 PM: hdelorenzi
9/27/2013 6:26 PM: hdelorenzi
9/27/2013 6:24 PM: hdelorenzi
9/27/2013 6:22 PM: hdelorenzi
9/27/2013 6:19 PM: hdelorenzi
9/27/2013 6:17 PM: hdelorenzi
9/27/2013 5:54 PM: hdelorenzi
9/27/2013 5:53 PM: hdelorenzi
9/27/2013 5:52 PM: hdelorenzi

TD Mobile Ein Beispiel



