Ein Bild, das Text enthält.

Automatisch generierte Beschreibung

|  |
| --- |
| PROJEKT PLAN |
| SOFTWARE-ANFORDERUNGS-SPEZIFIKATION |

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## **Rough concept**

### **Interface**

* Hand scanner Manufactured by Zebra. (only API to the POS, configurated by customer). It’s a Barcode and QR Scanner. It will be used at market and fairs and will speak with the POS System. In this reason it will not be our configuration.
* Loyverse POS, Outgoinggoodsof stock willbe sent by API to POS
* Label Printer
* Payment module

### **System Requirements**

* Technical requirements for the infrastructure.

Backend: Django/Phython

Database: MongoDB

Fronend: HTML5, CSS, JavaScript, jQuery ReactJs(If possible)

Security: SSL, Authentication

Processor: Minimum Intel ci3 or equivalent

RAM: 4 GB minimum

ROM: 500 GB minimum

### Usability browser

All current browsers of the operating systems Windows, Mac, Android, IOS. Such as Edge, FireFox, Chrome, Safari etc.

### Limits of the system: programs / providers / customers

Currently this system has order process manually from admin after getting email from supplier.

### Server Location

Own hosting by Hosttech

### Liability

The general terms and conditions of REB ONE Trading & Services apply

Liability due to incorrect calculations and rounding by the program isexcluded by the manufacturer after a successful test phase. If such an errorisfound, theerror will becorrectedbythemanufacturer.

### Test by customer according to protocol

See test protocol

### EAN

* EAN numbers in the range 061 XXXXX XXXXX available.
* These are regristred barcode numbers with saved informations. Can be used also as SKU for finally vending product.
* How extensively should the EAN be used?
* EAN as the article number according to the customer's list.

### Authentication /Backend Login/Frontend Login

* SSL for hosting
* Demonstrate security 2FA possibilities

### Processes (incoming and outgoing goods)

Definition of the processes of incoming and outgoing goods, processing/finishing by contract processors, resellers, POS and onlineshop.

* Process Flow Chart :

Supplier Base

Orders by Suppliers

Contract processor base

Goods receipt

Outgoing Goods for further processing

Raw material Stock

Basic reciepes collection

Reciepe capture

Article Base

Article capture

Item Stock

Outgoing Goods

Orders by onlineshop / Phone / Emai

Market / Fair

Shop at Aarau

## **Duty and requirement specification**

|  |  |  |  |
| --- | --- | --- | --- |
| Aufgabe - TxASK | REB ONE | Hoster | Kunde |
| Schnittstellen Programmierung |  |  |  |
| * **Schnittstelle POS** | x |  |  |
| * **Kartenzahlung / Twint**   **(sellxed)** | x |  |  |
| * **Peripheriegeräte** | x |  | x |
| * **Lieferanten** | x |  | x |
| Antwortseiten click to action  (Frontend / backend / Wawi | x |  | x |
| Supportumfang |  |  |  |
| * **Reb One** | x |  |  |
| * **Hoster** |  | x |  |
| Performanter Internezugang |  |  | x |
| Daten Migration | x |  | x |
| Backups |  | x |  |
| Hosting umfang |  | X | X |
|  |  |  |  |

## **Detail concept**

### Interfaces

#### Devices&Developer information :

##### Zebra Handscanner

* Wird vom Kunden gemacht – wouldbedonebycustomer

##### Loyverse Kassensystem - POS

* <https://developer.loyverse.com/docs/>
* Detail information Product

##### Label Printer

##### Sellxed Payment (onlineshop)

#### Interfaces import/exportformate, filetype

Filetype: csv/txt/json…

Ports:

Funktionalität: Cronjob, API, etc..

### System requirements

* Hosting Python
* MongoDB
* (Cron)-Services)

### Browser requirements min. version

Edge:

Firefox:

Chrome

Safari

### Limits of the system

Currently this system has order process manually from admin after getting email from supplier.

* How will the reports managed?
* By own system. Generate report in .csv file.
* How’s about the security?
* (SSL, 2FA, Ports, Authentification general (Frontent Client / Backend / WaWi)

**Database archidecture**

Filetype (ZIP Codes)(currencies, roundingsto .05 at Switzerland, exchange)

* Layout
* Input masks, administration, frontend.

### Processes

#### 

#### Orders

#### Supplier

#### Raw material

#### Article Number Supplier / in-house

#### QTY (selectionpcs / gram)

#### Date

The orders made from the merchandise management program, sent to the supplier by email and saved. These process is currenly handle manually.

#### **Supplier management**

* Name der Firma – Company name
* Kontaktperson – Contact person
* Adresse – Adress
* PLZ – ZIP
* Ort – City
* Land – Country
* Telefonnummer – Phone number
* E-Mail – email
* Webadresse – web adress
* Produkte des Lieferanten – productsfromthis supplier
* Bestellungen bei diesem Lieferanten – ordersbythis supplier
* BIO Zertifikate-ListeLieferant - BIO certificates-listsupplier

#### Raw material management

* Artikelnummer intern – Artliclenumber in-house
* Artikelnummer Lieferant – Articlenumber supplier
* Lieferant - supplier
* Artikelbezeichnung – Article Name
* Artikel Art (Gewürz, Verpackung, …) – Article type (condiment, packaging, ..)
* Ist nach Gramm / Stk. – Isby gram / pcs.
* BIO ZertifikatLieferant – BIO certificate supplier
* Chargennummer – Batchnumber
* Herkunft – origin
* Preis/kg CHF – price/kg CHF
* Allergene

#### Wareneingang – Goodreceipt

##### Produkterfassung – Productcapture

* Datum - date
* Auswahl der Bestellung – Selectionoforder
* Lieferschein Nr. - deliverynoteno
* Lieferant - supplier
* Rohstoff – raw material
* Artikel Art (Gewürz, Verpackung, …) – Article type (condiment, packaging, ..)
* Art. Nr. Lieferant / Intern – ArticleNumber Supplier / in-house
* Menge (Auswahl Stk. / Gramm) – Qty
* BIO intern □ – BIO in-house
* BIO Zertifiziert □AblaufdatumZertifikat – BIO Certificate, Expiry Date certificate
* Chargen Nr. – batchnumber
* MHD (Datum) optional - bestbefore date (optional)
* Herkunft Land (Länderauswahl) – origincountry (countryselection)
* Preis / kg original Währung – price / kg original currency
* Währung (Auswahl) – currency (select)
* Umrechnungskurs -> Anzeige Preis in CHF – exchange rate->viewprice in CHF
* Allergene (Auswahl) – allergens (select)

##### Kontrolle - Controlling

* Verpackung (Auswahl; Intakt/leicht Beschädigt/stark Beschädigt)

Packaging (select; Intact / slightlydamaged / heavilydamaged)

* Sensorik (Freitext) – sensor (freetext)
* Mitarbeiter (Freitext)–employee (freetext)
* Massnahme (Freitext) – Action (freetext)
* Spezifikationen (Freitext) – specifics (freetext)

##### Lager - Warehouse

* Lagerort (Regal Nr. 1-15, Platz A/B/C/D/E/F/G, Bemerkungen Freitext)

Sorage location (regal no. 1-15, shelf place A/B/C/D/E/F/G, remarks as free text)

#### Veredelung - processing

##### Basisrezepte – basicrecipes

###### Rezeptvorlage – Recipe template

* Rezeptname – recipe name
* Art. Nr. – recipe number
* Rohstoffe -> Auswahl Rohstoff DB – rawmaterial->selectfromdatabase
* Menge (gem. Rohstoff Stk. / Gramm) – qty (accordingtoraw material pcs/gram

**Mehrfache Eingabemöglichkeit – Multibleinputpossibilities**

###### Rezepterfassung Produktion – recipescaptureproduction

* Rezeptname (Auswahl aus Vorlage, nach Name oder Art. Nr. oder Neu)

Recipename (Select from Template by Name or Art No. Or make newtemplate)

* Automatische Auflistung der Zutatenliste und Menge

Automaticlistingoftheingrediends and qtyfromthetemplate

* Auswahl der Charge/Lieferant, Mehrfachauswahl bei Aufbrauch der Charge

Selection of the batch/supplier. Multible select by finishing one batch

* Produktions-Chargennummer – Productionbatchnumber (in-house)
* Total CHF der verwendeten Zutaten – Berechnung CHF/Kg

Total CHF of all usedintegrediends – calculation CHF/kg

* Produktionsdatum (Auto, veränderbar) – Date ofproduction (auto, changeable)
* MHD (Datum) – bestbevore date
* Mitarbeiter (Freitext) - employee
* Lagerort (Regal Nr. 1-15, Platz A/B/C/D/E/F/G, Bemerkungen Freitext)

Sorage location (regal no. 1-15, shelf place A/B/C/D/E/F/G, remarks as free text)

#### Artikelerfassung&Preiskalkulation – article capture &pricecalculation

##### Artikelerfassung – articlecapture

* Artikelname +Art Nr. (Auswahl Artikelstamm)

Article Name + Art. No. (selection Article template base)

* Basisrezept (Produktions-Chargennummer Auswahl)

Basic reciepe (production batch numberselection)

* Gewicht- oder Mengenvorgabe (Anzeige aus Artikelstamm)

WeightorQtyhastobe (viewfromArtikclebase)

* Max. Gewicht oder Stück (Anzeige aus Artikelstamm)

Max. weight or qty (viewfrom Article base)

* Effektives Gewicht oder Stück (Eingabe)

Effective weight or qty (input)

* Verpackung (Anzeige aus Artikelstamm + Auswahl Rohstofflager Verpackungen)

Package (samplefrom Article base + select fromrawmaterialstorage packages)

* Abgefüllt Menge (Eingabe Stk.)

Bottledqty (inputpcs.)

* MHD (Aus Basisrezept Produktion)

Best before date (from production)

* Liefergewicht inkl. Verpackung (Effektives Gewicht + Gewicht Verpackung)

Deliveryweight incl. Package (effectiveweight + weightofpackage)

* Datum - date
* Abfüllort (Freitext)–Fillinglocation (freetext)
* Bemerkung (Freitext) – comments (freetext)
* EAN Nummer (Artikelstamm) – EAN number (fromarticletemplatebase)

##### Preiskalkulation&Detailinformation – pricecalculation and detail informations

* Liste der Lieferanten, Chargen Nr., BIO, Alergene

List of supplier, batch numbers, BIO certificate and allergens

* Preis per Stk. EK (Kalk aus Effektives Gewicht und Total CHF/Kg Produktion+ Verpackung)

Price per unit purchase (effective weight x total/kg production + package price)

* Verkaufspreis (CHF freie Eingabe) Vorschlag x3

Sellingprice (CHF, free value) and samplesellingprice (purchase x3)

* Etiketten-Editor und Drucken (optional)

Label printereditor and printing (optional)

#### Warenausgang – outgoinggoods

##### Warenausgang zu Shop Aarau – outgoinggoods tot he shop in Aarau

* Artikelname + Art. Nr. + EAN(Auswahl Artikel-Lager)

Article name/Article number or EAN Number (selection of the article storage)

* Menge stk. - Pcs
* Datum - Date

Bei Speichern Dateiübermittlung per API zu Loyverse POS

Transmitionofthedatasby API tot he loyverse POS system.

##### Warenausgang Markt/Messe – outgoinggoodsmarket/fair

* Artikelname + Art. Nr. + EAN(Auswahl Artikel-Lager)
* Article name/Article number or EAN Number (selection of the article storage)
* Menge stk. – Pcs
* Datum – date
* Lieferschein–delivery note (pdf)

##### Warenausgang Lohnverarbeiter – outgoinggoodscontractprocessors

* Lohnverarbeiter (Lohnverarbeiterstamm)

Contract processor (contract processor base)

* Rohstoffe -> Auswahl Rohstoff DB – Raw material ->selectionfromrmw material base
* Menge (gem. Rohstoff Stk. / Gramm) – qtypcs/gram
* Lieferschein – deliverynote (pdf)
* Datum – date
* Mitarbeiter - employee

##### Warenausgang Onlineshop und Tel./Mail Bestellung – outgoinggoodsonlineshop-/phone-/emailorder

* Kundenstamm – Customer information (customerbase)
* Bezahlart (automatisch bei Onlinebest. / Auswahl bei Manueller erfassung)

Payment method (automaticfilledbyonlineshop /selectionbymanuallyinput)

* Lieferschein – deliverynote (pdf)
* Rechnung – bill (pdf)
* Artikelname + EAN – orderedarticles + EAN number
* Menge Stk. – qtypcs
* Datum – date

##### Ausbuchung Makulatur – booking-out waste

* Datum - date
* Artikel - article
* Menge - qty
* Grund Freitext – reasoncomment
* Mitarbeiter–employee

## Testkonzept - Test concept

### Eingabemasken - Input masks

* + Bestellung / Order
  + Wareneingang / Incoming goods
  + Basisrezepte / Basic recipe
  + Rezepte / Recipes
  + Artikelerfassung / Articlecollection
  + Kalkulation / Calculation
  + Rechnungserfassung ab Lager / Invoicingfrom stock

### Prozesse - Processes

* + Wareneingang / Incoming goods
  + Veredelung / Finishing
  + Ausgang Grosskunden/Wiederverkäufer /Exit majorcustomers / resellers
  + Ausgang Laufkundschaft / Walk-in customersexit
  + Ausgang Online / Telefonbestellung - Exit online / Telephoneorder
  + Ausbuchung Makulatur - Posting ofwaste
  + Rückverfolgbarkeit Chargen, Lot, Bio -Traceabilityofbatches, lots, bio

### Zahlungen und Rückerstattung/Gutschrift - Payments and Refunds / Credits

* + API
  + Rechnungsgenerator QR Code - Invoicegenerator QR code
  + Rabatte / Kundengruppen Preis - Discounts / customergroupprice
  + Storno - Reversal
  + Gutschrift / Rückerstattung - Credit / Refund
  + Gutscheincode - Coupon code
  + Mahnlauf - Mahnlauf
  + Reporting
  + Umsatz generell (Monat/Semester/Jahr) -General sales (month / semester / year)
  + Umsatz nach Artikel/Rezept - Sales byarticle / recipe
  + Umsatz nach Kunde - Sales bycustomer
  + Abschlüsse (Quartal/Semester/Jahr) -Degrees (quarter / semester / year)
    - Umsatz - sales
    - Transitorische Aktiven - transitoryassets
    - Transitorische Passiven - transitoryliabilities
    - Ertrag/Verlust - income / loss
  + % Bio - %Bio
  + Umsatz bei Lieferant - Sales at the supplier

### Technik - Technology

* + SEO
  + Responsive
  + Pagespeed Desktop/Mobile
  + Haptik - He is happy
  + Automatische Nachbestellung oder Erinnerung bei erreichen Lagerbestand x

Automaticre-order orreminderwhenthestock xisreached

* + Technik API - API technique
  + Bestellung Logs (IP etc) - Order Logs (IP etc)

**SRS(Software Requirement Specification)**

1. **Introduction**
2. **Objective**
3. **Project Category**
4. **Technology Used**
5. **Software Requirement**
6. **Hardware Requirement**
7. **Feasibility Study**
8. **Design**
9. **Project Planning**
10. **Implementation of security mechanism at various level**
11. **Future scope and enhancement**
12. **Introduction:**

It is a merchandise management system. There will be an admin panel which merchandise will use to keep maintain orders, inventory, products, sales, transaction etc.

1. **Objective:**

To provide merchandise, raw material supplier and customers a common but different user interface online platform from where they can manage their whole process (raw material supply, order place from both supplier and customer end, order management, transaction management, product management, stock management).

1. **Project Category:**

It is a web application for merchandise and invetory management system.

1. **Technology Used:**
   * Language: Python
   * Framework: django
   * Database: mongoDB
   * User Interface: HTML, CSS, jQuery
2. **Software Requirement:**
   * Komodo Edit
   * Python runtime environment
   * Django framework
   * Any web browser
3. **Hardware Requirement:**

* Processor: Intel corei3 or equivalent
* RAM: 4 GB minimum
* ROM: 50 GB hard disc space minimum

1. **Feasibility Study:**

As it is a web application for merchandise management system where you can manage order, inventory, product, transaction, report so it can be develop easily by python/django technology.

Order from supplier via email which can be manage manually from admin panel.

1. **Design:**

Please see process flow chart and Database Architechture.

## **Project Plan****nig**

## Time shedule

* Finishing approximately 3-4 months after the project has been awarded.
* Planning:
  + Phase 1: Install Python and djando framework.
  + Phase 2: Design the User Interfase for merchandise admin using HTML and CSS.
  + Phase 3: Implement User Interfase code to django framework.
  + Phase 4: Database design.
  + Phase 5: Code for admin and frontend to make it functional.
  + Phase 6: Testing.

1. **Implementation of security mechanism at various level:**
   * From admin there would be session tracking for login.
   * From server end there would be SSL.
2. **Future scope and enhancement:**

In future we can upgrde this system such as add supplier end account dashboard as they can place order from that section.