

Id	Count	Category	Subcategory	Requirement
1	1	objective	Accident prevention	The system shall prevent accidents in the kitchen environment.
2	1	objective	Appliance operation	The system shall provide the kitchen staff with the ability to simplify operation of kitchen appliances.
3	1	objective	Appliance operation	The system shall automatically control the cooking stove, so customers can focus on preparation.
4	1	objective	Appropriate measures	The system shall provide the manager with the ability to take appropriate measures based on the documented violations.
5	1	objective	Appropriate measures	The system shall provide the authority with the ability to take appropriate measures based on the documented violations.
6	1	objective	Appropriate measures	The system shall provide the kitchen staff with the ability to take appropriate measures.
7	1	objective	Appropriate measures	The system shall provide the manager with the ability to take appropriate measures.
8	1	objective	Automatic goods ordering	The system shall enable automatic orders of goods.
9	1	objective	Autonomous navigation	The system shall navigate autonomously.
10	1	objective	Business operation improvement	The system shall serve as a tool for improving business operations.
11	1	objective	Business operation performance	The system shall allow to gain insights into the operational performance of the business.
12	2	objective	Capacity utilization optimization	The system shall optimize the restaurant capacity utilization.
13	1	objective	Cleanliness maintainment	The system shall provide the manager with the ability to maintain cleanliness.
14	1	objective	Compost establishment	The system shall provide the government with the ability to establish composts.
15	3	objective	Cost reduction	The system shall reduce operation costs.
16	1	objective	Cost reduction	The system shall reduce costs.
17	1	objective	Cost reduction	The system shall reduce employee costs.
18	1	objective	Cost reduction	The system shall reduce energy costs of the cooking stove.
19	1	objective	Cost reduction	The system shall reduce light electricity costs.
20	1	objective	Creativity encouragement	The system shall encourage the creativity of the kitchen staff.
21	1	objective	Customer demand planning	The system shall provide the manager with the ability to plan customer demand at the buffet in advance.
22	1	objective	Customer eating habit communication	The system shall provide the customer with the ability to easily communicate their eating habits.
23	3	objective	Customer experience	The system shall improve the customer experience.
24	1	objective	Customer experience	The system shall provide the kitchen staff with the ability to create new customer experiences.

Id	UC1	UC2	UC3	UC4	UC5	UC6	UC7	UC8	UC9	UC10	UC11	UC12	UC13	UC14	UC15	UC16	UC17	UC18	UC19	UC20	UC21	UC22	UC23	UC24	UC25
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Id	Count	Category	Subcategory	Requirement
25	<div><div></div></div> 2	objective	Customer food amount adjustment	The system shall allow the adjustment of food amount to the customer.
26	<div><div></div></div> 1	objective	Customer guidance	The system shall guide customers during dish preparation.
27	<div><div></div></div> 1	objective	Customer guidance	The system shall efficiently guide customers.
28	<div><div></div></div> 1	objective	Customer identification	The system shall provide the manager with the ability to identify customers with a high amount of waste produced.
29	<div><div></div></div> 2	objective	Customer loyalty increase	The system shall increase the customer loyalty.
30	<div><div></div></div> 1	objective	Customer menu personalization	The system shall provide the customer with the ability to personalize the menu.
31	<div><div></div></div> 1	objective	Customer need	The system shall ensure that the buffet offer meets the needs of customers.
32	<div><div></div></div> 2	objective	Customer nutrition	The system shall provide the customer with the ability to comply with nutritional guidelines.
33	<div><div></div></div> 2	objective	Customer nutrition	The system shall provide the customer's nutritionist with the ability to receive nutritional information from the customer.
34	<div><div></div></div> 1	objective	Customer personalization	The system shall create a personalized dish based on customer preferences.
35	<div><div></div></div> 1	objective	Customer preferences	The system shall provide the customer with the ability to respect their preferences.
36	<div><div></div></div> 1	objective	Customer preferences	The system shall respect customer-specific wishes.
37	<div><div></div></div> 1	objective	Customer satisfaction	The system shall provide the customer with the ability to always find the preferred dish at the buffet.
38	<div><div></div></div> 4	objective	Customer satisfaction	The system shall increase customer satisfaction.
39	<div><div></div></div> 3	objective	Customer saturation	The system shall provide the customer with the ability to be saturated.
40	<div><div></div></div> 1	objective	Customer supervision	The system shall decrease supervision effort of customers during preparation.
41	<div><div></div></div> 1	objective	Damage reduction	The system shall reduce damage to the kitchen environment.
42	<div><div></div></div> 1	objective	Data analysis	The system shall provide the manager with the ability to analyze the captured waste data.
43	<div><div></div></div> 1	objective	Data analysis	The system shall provide the kitchen staff with the ability to analyze the captured waste data.
44	<div><div></div></div> 1	objective	Detection of spoiled food	The system shall support the kitchen staff in the detection of spoiled food.
45	<div><div></div></div> 1	objective	Dish preparation	The system shall support on dish preparation.
46	<div><div></div></div> 1	objective	Efficiency increase	The system shall increase the operation efficiency.
47	<div><div></div></div> 1	objective	Effort reduction	The system shall reduce the management effort of light controls.
48	<div><div></div></div> 6	objective	Effort reduction	The system shall provide the kitchen staff with the ability to reduce effort.
49	<div><div></div></div> 1	objective	Effort reduction	The system shall reduce work effort of the manager.
50	<div><div></div></div> 1	objective	Effort reduction	The system shall reduce management effort.
51	<div><div></div></div> 1	objective	Employee attendance	The system shall prevent false statements regarding employee attendance.

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Id	Count	Category	Subcategory	Requirement
52	1	objective	Environmental pollution reduction	The system shall reduce environmental pollution.
53	1	objective	Environmental pollution reduction	The system shall provide the government with the ability to reduce environmental pollution.
54	1	objective	Error prevention	The system shall provide the kitchen staff with the ability to prevent any hygiene errors.
55	1	objective	Error prevention	The system shall provide the manager with the ability to prevent any hygiene errors.
56	1	objective	Communication improval	The system shall improve external communication between waiter and customer.
57	2	objective	Communication improval	The system shall improve internal communication between the waiter and the kitchen staff.
58	1	objective	Fertilizer creation	The system shall create fertilizer from food waste.
59	1	objective	Focus optimization	The system shall provide the kitchen staff with the ability to focus on their area of interest.
60	1	objective	Food condition monitoring	The system shall provide the kitchen staff with the ability to get insights into the conditions of the dishes at the buffet.
61	1	objective	Food personalization	The system shall provide the customer with the ability to eat personalized food.
62	2	objective	Food production adjustment	The system shall provide the kitchen staff with the ability to adjust the amount of food produced.
63	1	objective	Food status capturing	The system shall efficiently capture the food status in shelf.
64	1	objective	Food waste actions	The system shall provide the manager with the ability to take individual action towards waste reduction.
65	1	objective	Food waste awareness	The system shall create awareness about food waste.
66	1	objective	Food waste overview	The system shall provide the customer with the ability to gain an overview of their food waste.
67	1	objective	Food waste overview	The system shall provide the manager with the ability to gain an overview of individual food waste.
68	3	objective	Food waste reduction	The system shall reduce food waste.
69	1	objective	Hygienic preparation	The system shall provide the customer with the ability to ensure hygienic preparation of food.
70	1	objective	Illness prevention	The system shall prevent illness of the kitchen staff.
71	1	objective	Illness prevention	The system shall prevent illness of the customers.
72	1	objective	Immersive experience	The system shall allow an immersive experience.
73	1	objective	Insight gaining	The system shall provide the manager with the ability to derive insights from the business's key figures.
74	1	objective	Inventory overview	The system shall provide the kitchen staff with the ability to simplify inventory overview.
75	1	objective	Inventory overview	The system shall track the current inventory.

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Id	Count	Category	Subcategory	Requirement
76	1	objective	Inventory overview	The system shall provide the manager with the ability to eliminate the inaccuracy of inventory tracking.
77	1	objective	Kitchen staff effort reduction	The system shall provide the kitchen staff with the ability to reduce manual effort.
78	1	objective	Kitchen staff guidance	The system shall efficiently guide the kitchen staff.
79	1	objective	Kitchen staff training	The system shall improve training of kitchen staff.
80	1	objective	Kitchen staff workload	The system shall reduce the workload of the kitchen staff.
81	1	objective	Menu access	The system shall provide the customer with the ability to easily access the menu.
82	1	objective	Message communication	The system shall provide the kitchen staff with the ability to receive warnings on their mobile phone.
83	1	objective	Message communication	The system shall provide the manager with the ability to receive warnings on their mobile phone.
84	1	objective	No false alarm	The system shall trigger no false alarms when a person is operating the cooking stove.
85	1	objective	No false alarm	The system shall trigger as few false alarms as possible.
86	1	objective	No restrictions	The system shall provide the kitchen staff with the ability to experience no restrictions in their usual way of working.
87	1	objective	Offering variety	The system shall increase the variety of offerings.
88	1	objective	Optimal food shelf conditions	The system shall provide the kitchen staff with the ability to take the necessary actions towards optimal food shelf conditions.
89	1	objective	Optimal preparation	The system shall provide the kitchen staff with the ability to identify the optimum sequence of preparation.
90	1	objective	Order recoding	The system shall allow an easy recoding of orders.
91	1	objective	Pleasant dining room	The system shall provide the customer with the ability to dine in a pleasant dining room.
92	1	objective	Pleasant dining room	The system shall provide the manager with the ability to provide a pleasant dining room.
93	2	objective	Preparation time	The system shall improve transparency of the preparation time.
94	1	objective	Preparation with recipe	The system shall provide the customer with the ability to prepare a dish according to a recipe.
95	2	objective	Process insights	The system shall improve insight into current processes of the restaurant.
96	2	objective	Productivity optimization	The system shall provide the manager with the ability to optimize productivity of the business.
97	1	objective	Profit maximization	The system shall provide the manager with the ability to maximize the business's profit.
98	1	objective	High-quality food	The system shall improve court quality.
99	1	objective	High-quality food	The system shall provide the manager with the ability to provide high-quality food to customers.

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Id	Count	Category	Subcategory	Requirement
100	1	objective	Reaction ability	The system shall provide the kitchen staff with the ability to remain capable of acting regardless of the situation.
101	1	objective	Reaction ability	The system shall provide the manager with the ability to remain capable of acting regardless of the situation.
102	1	objective	Recipe creation	The system shall provide the kitchen staff with the ability to support in the creation process of new recipes.
103	1	objective	Recipe learning	The system shall provide the kitchen staff with the ability to practically learn recipes.
104	1	objective	Redundant task reduction	The system shall reduce redundant tasks of the kitchen staff.
105	1	objective	Reputation improvement	The system shall enhance the reputation of the kitchen staff.
106	1	objective	Response time	As soon as a negative event regarding the cooking stoves appears, the system shall respond within seconds.
107	1	objective	Safety awareness	The system shall increase the kitchen staffs safety awareness.
108	1	objective	Skills enhancement	The system shall enhance the skills of the kitchen staff.
109	1	objective	Technician workload reduction	The system shall provide the waterworks technician with the ability to minimize the workload.
110	1	objective	Theft prevention	The system shall prevent theft.
111	1	objective	Time for preparation reduction	The system shall reduce the time for preparation.
112	1	objective	Time to order reduction	The system shall reduce the time to order.
113	1	objective	Unique selling points	The system shall create unique selling points.
114	1	objective	Use of food	The system shall support the kitchen staff in the use of edible foods.
115	2	objective	Waiting time reduction	The system shall decrease waiting time of the customer.
116	3	objective	Waste production	The system shall reduce the amount of waste produced.
117	1	objective	Water consumption	The system shall capture the water consumption.
118	1	objective	Water consumption	The system shall reduce the water consumption.
119	1	objective	Water consumption	The system shall sensitize the kitchen staff of their water consumption.
120	1	objective	Weight analysis	The system shall provide the manager with the ability to analyze the captured waste weight.
121	1	objective	Work method insight	The system shall provide the kitchen staff with the ability to gain insights into their working methods.
122	1	objective	Work method optimization	The system shall provide the kitchen staff with the ability to optimize their working methods.
123	1	objective	Working environment	The system shall provide the kitchen staff with the ability to work inside a clean working environment.
124	1	objective	Working environment	The system shall provide the kitchen staff with the ability to work inside a safe working environment.

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Id	Count	Category	Subcategory	Requirement
125	1	objective	Working environment	The system shall ensure a safe working environment.
126	1	objective	Kitchen staff presence	The system shall automatically document the presence of kitchen staff employees.
127	1	objective	Kitchen staff presence	The system shall provide the manager with the ability to monitor who is working in the kitchen.
128	1	objective	Employee attendance	The system shall provide the manager with the ability to view employee attendance as an overview in a user interface.
129	1	objective	Historical trend	As soon as the kitchen staff receives information on the increase of water usage, the system shall provide the kitchen staff with the ability to view the historical trend in water consumption.
130	1	objective	Historical trend	The system shall provide the kitchen staff with the ability to view the history of produced food waste.
131	1	objective	Historical trend	The system shall provide the manager with the ability to view the history of produced food waste.
132	1	objective	Historical trend	The system shall provide the manager with the ability to view the historical data as a graph.
133	1	objective	Historical trend	The system shall provide the authority with the ability to check which violations have occurred in a certain time frame.
134	1	objective	Figure display	The system shall provide the manager with the ability to view daily key figures of the business.
135	1	objective	Figure display	As soon as the metrics "hours of highest utilization" and "most popular dish" are calculated, the system shall display them visually.
136	1	objective	Figure display	The system shall provide an overview of the business's key sales figures.
137	1	objective	Figure display	The system shall provide an overview of the business's key operation figures.
138	1	objective	Captured data monitoring	The system shall provide the manager with the ability to check which violations have occurred.
139	1	objective	Captured data monitoring	The system shall provide the kitchen staff with the ability to observe the measured values.
140	1	objective	Captured data monitoring	The system shall provide the manager with the ability to view kitchen light energy consumption.
141	1	objective	Captured data monitoring	As soon as the kitchen staff takes action to reduce consumption, the system shall provide the kitchen staff with the ability to view the current measured values.
142	1	objective	Captured data monitoring	The system shall provide the manager with the ability to view documented events.
143	1	objective	Captured data monitoring	The system shall provide the kitchen staff with the ability to view the calculated data.
144	1	objective	Captured data monitoring	As soon as the weight including the tolerance weight is accumulated, the system shall display the captured weight to the customer.

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145	1	objective	Captured data monitoring	The system shall provide the kitchen staff with the ability to view the sequence of steps performed during the activity.
146	2	objective	Immersive experience	The system shall support Augmented Reality.
147	1	objective	Immersive experience	The system shall provide an immersive guidance experience.
148	1	objective	Control button	The system shall have a light control button inside a user interface.
149	1	objective	Control button	The system shall provide the manager with the ability to centrally control the lights inside the kitchen on a user interface.
150	1	objective	Report creation	The system shall provide the manager with the ability to generate a report of employee attendance.
151	14	objective	User Interface	The system shall have a user interface.
152	1	objective	Error display	If an error appears during the optimum sequence determination, the system shall display the error to the kitchen staff.
153	2	objective	Preparation capturing	The system shall capture the start of an order preparation.
154	2	objective	Preparation capturing	The system shall capture the current state of an order preparation.
155	2	objective	Preparation capturing	The system shall capture the end of an order preparation.
156	1	objective	Preparation capturing	The system shall provide metrics of the dish preparation process.
157	1	objective	Preparation capturing	The system shall capture the start of an dish preparation.
158	1	objective	Preparation capturing	The system shall capture the end of an dish preparation.
159	1	objective	Energy consumption	The system shall acquire the energy consumed by the cooking stove.
160	1	objective	Energy consumption	As soon as the light is turned on, the system shall capture the amount of energy consumed by kitchen lights.
161	1	objective	Energy consumption	The system shall acquire the amount of energy consumed by kitchen lights in kWh.
162	1	objective	Energy consumption	The system shall analyse the amount of energy consumed by kitchen lights.
163	3	objective	Energy consumption	The system shall acquire the amount of energy consumed by the cooking stove.
164	1	objective	Energy consumption	The system shall reduce the amount of energy consumed by the cooking stove.
165	1	objective	Energy consumption	The system shall provide metrics of the energy consumed by the cooking stove.
166	1	objective	Energy consumption	The system shall calculate the savings of non-consumed kWh.
167	1	objective	Weight tolerance	As soon as the weight of waste is captured, the system shall consider a tolerance weight.
168	1	objective	Weight tolerance	The system shall capture a tolerance weight of waste allowed to be produced by customers.
169	1	objective	Weight acquisition	As soon as the customer disposes his waste, the system shall capture the weight of the waste.
170	1	objective	Weight acquisition	The system shall capture the weight of waste produced by customers.
171	3	objective	Weight acquisition	The system shall acquire the weight level of the cooking pans content.

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Id	Count	Category	Subcategory	Requirement
172	1	objective	Weight acquisition	As soon as the kitchen staff places the pre-separated waste on the scale, the system shall capture the weight of the waste.
173	1	objective	Weight acquisition	The system shall acquire the weight of a dish inside a chafing dish.
174	1	objective	Object identification	As soon as the system has captured the weight of the waste, the system shall identify the type of waste.
175	1	objective	Object identification	The system shall identify the type of waste.
176	1	objective	Object identification	The system shall identify each good.
177	1	objective	Object identification	As soon as a picture of the kitchen environment is taken, the system shall identify objects.
178	1	objective	Object identification	The system shall detect if no person is operating the cooking stove.
179	1	objective	Temperature acquisition	The system shall acquire three temperature measures.
180	1	objective	Temperature acquisition	The system shall acquire the temperature level of the cooking stove.
181	3	objective	Temperature acquisition	The system shall acquire the temperature level of the cooking pan.
182	1	objective	Temperature acquisition	The system shall acquire the temperature level of the food in stock.
183	1	objective	Temperature acquisition	The system shall acquire the temperature level of the kitchen environment.
184	1	objective	Temperature acquisition	The system shall acquire the temperature of a dish inside a chafing dish.
185	1	objective	Temperature acquisition	The system shall acquire temperature of the compost.
186	1	objective	Temperature acquisition	The system shall acquire the surrounding temperature of the compost.
187	2	objective	Cooking stove capturing	The system shall capture the possible combination of cooking stoves.
188	1	objective	Cooking stove capturing	The system shall capture the current available amount of cooking stoves.
189	1	objective	Cooking stove capturing	As soon as the kitchen staff wants to prepare dishes, the system shall provide the kitchen staff with the ability to specify the available cooking stoves.
190	2	objective	Cooking stove capturing	The system shall capture the current available cooking stoves.
191	1	objective	Cooking stove capturing	The system shall capture the total available cooking stoves.
192	1	objective	Gas acquisition	The system shall acquire smoke inside the kitchen environment.
193	1	objective	Gas acquisition	The system shall acquire liquefied petroleum gas inside the kitchen environment.
194	1	objective	Gas acquisition	The system shall acquire carbon monoxide gas inside the kitchen environment.
195	1	objective	Gas acquisition	The system shall acquire the methane concentration of the food in stock.
196	1	objective	Humidity acquisition	The system shall acquire the humidity level of the compost.
197	1	objective	Humidity acquisition	The system shall acquire the humidity level of the food in stock.
198	1	objective	Water consumption	The system shall capture the water consumption of the kitchen in liters per second.
199	1	objective	Customer calorie requirement	The system shall capture the daily calorie requirement of the customer.
200	1	objective	Customer calorie requirement	The system shall provide the customer with the ability to enter his daily calorie requirement.

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Id	Count	Category	Subcategory	Requirement
201	1	objective	Customer calorie requirement	As soon as the customer has entered the daily calorie requirement, available time to eat, and hunger level, the system shall calculate based on the daytime the permitted number of calories for the dish.
202	1	objective	Customer hunger level	The system shall capture the customers hunger level.
203	1	objective	Customer hunger level	The system shall provide the customer with the ability to enter his hunger level.
204	3	objective	Customer UUID	The system shall have a unique identification number for each customer.
205	1	objective	Customer personal data	The system shall acquire the personal data of customers.
206	3	objective	Customer preferences	The system shall acquire the personal food preferences of customers.
207	1	objective	Customer feedback	The system shall acquire customer feedback.
208	1	objective	Goods tracking	As soon as the kitchen staff documents information about a good, the system shall add the good to the inventory.
209	1	objective	Goods tracking	As soon as an outgoing good gets scanned, the system shall remove the good from the inventory.
210	1	objective	Goods tracking	The system shall record incoming and outgoing goods.
211	1	objective	Kitchen staff UUID	The system shall capture a unique identification of kitchen staff employees.
212	1	objective	Kitchen staff personal data	The system shall capture the name of kitchen staff employees.
213	1	objective	Arrival date kitchen staff	The system shall capture the date of arrival at work of kitchen staff employees.
214	1	objective	Arrival time kitchen staff	The system shall capture the time of arrival at work of kitchen staff employees.
215	1	objective	Order details	The system shall acquire the ordered dishes.
216	1	objective	Order details	The system shall capture the start of an order preparation.
217	1	objective	Order details	The system shall capture the end of an order preparation.
218	1	objective	Order details	The system shall capture the serving of an customer order.
219	1	objective	Cost calculation	As soon as a dish is ordered, the system shall capture the contribution margin.
220	1	objective	Cost calculation	The system shall capture fixed business costs.
221	1	objective	Cost calculation	The system shall capture variable business costs.
222	1	objective	Metric calculation	As soon as the manager opens daily key figures of the business, the system shall calculate the metric "hours of highest utilization".
223	1	objective	Metric calculation	As soon as the manager opens daily key figures of the business, the system shall calculate the metric "most popular dish".
224	1	objective	Metric calculation	The system shall provide metrics of the order preparation process.
225	1	objective	Time capturing	As soon as the system documents a violation, the system shall capture the point in time.
226	1	objective	Time capturing	As soon as a dish is ordered, the system shall capture the point in time.
227	1	objective	Time capturing	The system shall acquire the point in time of preparation of a dish inside a chafing dish.

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Id	Count	Category	Subcategory	Requirement
228	1	objective	Time capturing	As soon as the dish is scaled accordingly, the system shall calculate the amount of time needed to chew the food based on the specified hunger level of the customer.
229	1	objective	Time capturing	The system shall capture the point in time of an action regarding handling the cooking utensil.
230	1	objective	Time capturing	The system shall capture the customers available time to eat.
231	1	objective	Time capturing	The system shall provide the customer with the ability to enter his available time to eat.
232	1	objective	Date capturing	As soon as a dish is ordered, the system shall capture the date.
233	1	objective	Date capturing	As soon as the system documents a violation, the system shall capture the date.
234	1	objective	Date capturing	As soon as waste is produced, the system shall capture the date.
235	1	objective	Date capturing	The system shall capture the date of an action regarding handling the cooking utensil.
236	1	objective	Access documentation	As soon as an employee tries to access the kitchen, the system shall document the event.
237	1	objective	Detail documentation	As soon as the kitchen staff puts a chip onto an incoming good, the system shall provide the kitchen staff with the ability to write information on the chip.
238	1	objective	Detail documentation	As soon as the kitchen staff puts a chip onto an incoming good, the system shall provide the kitchen staff with the ability to document information about the good.
239	2	objective	Dish capturing	As soon as a prepared dish can be served, the system shall capture the dish to be served.
240	2	objective	Dish capturing	As soon as a dish is consumed, the system shall capture the consumed dish.
241	2	objective	Food nutritional information	As soon as the consumed dish is captured, the system shall extract nutritional information.
242	2	objective	Food amount	As soon as the consumed dish is captured, the system shall extract the consumed amount of food.
243	1	objective	Finished compost	The system shall identify when composting is finished.
244	1	objective	Force capturing	The system shall acquire the compressive force from 0 to 25 Newton of a cooking utensil.
245	1	objective	Force capturing	The system shall acquire the bending force from -6 to 6 Newton of a cooking utensil.
246	1	objective	Force capturing	The system shall acquire the torsional moment from -0.33 to 0.33 Newton meters of a cooking utensil.
247	1	objective	Force capturing	The system shall acquire the squeezing force from 0 to 2.5 Newton of a cooking utensil.
248	1	objective	Force capturing	As long as the kitchen staff carries out an activity with the cooking utensil, the system shall capture the applied forces.
249	1	objective	Force capturing	The system shall capture the start of an action regarding handling the cooking utensil.
250	1	objective	Force capturing	The system shall capture the end of an action regarding handling the cooking utensil.
251	1	objective	Kitchen environment capturing	The system shall capture a picture of the kitchen environment.
252	1	objective	Control button	The system shall have a physical light control button.
253	1	objective	Control button	As soon as the kitchen staff wants to start an action regarding handling the cooking utensil, the system shall provide the kitchen staff with the ability to press a button.

Id	Count	Category	Subcategory	Requirement
254	1	objective	Control button	As soon as the kitchen staff wants to end an action regarding handling the cooking utensil, the system shall provide the kitchen staff with the ability to press a button.
255	1	objective	Sensor durability	The system shall have durable sensor technology.
256	1	objective	Kitchen staff alert	As soon as the methane concentration of the food in stock is above 0,00017%, the system shall inform the kitchen staff about the methane concentration.
257	1	objective	Kitchen staff alert	As soon as the temperature of the food in stock is between 40°C and 150°C, the system shall inform the kitchen staff about the temperature level.
258	1	objective	Kitchen staff alert	As soon as the humidity level of the food in stock is above 55%, the system shall inform the kitchen staff about the humidity level.
259	1	objective	Data analysis	The system shall provide the manager with the ability to identify the performed work.
260	1	objective	Data analysis	As soon as the recording of forces has finished, the system shall identify which step was done at a point.
261	1	objective	Data analysis	As soon as data of the chafing dish is acquired, the system shall analyse the data.
262	1	objective	Data analysis	The system shall provide the kitchen staff with the ability to draw conclusions about the working methods.
263	1	objective	Food analysis	The system shall provide the kitchen staff with the ability to draw conclusions about the food used.
264	1	objective	Food analysis	The system shall analyse the quality of the food inside a chafing-dish.
265	1	objective	Food analysis	The system shall analyse the demand of the food inside a chafing-dish.
266	1	objective	Food analysis	As soon as data of the chafing dish is acquired, the system shall forecast when the respective dishes need to be refilled.
267	1	objective	Food analysis	As soon as the buffet has opened, the system shall acquire the necessary data of the food inside the chafing dish.
268	1	objective	Food analysis	The system shall provide the manager with the ability to draw conclusions about the food used.
269	1	objective	Environmental conclusion	The system shall provide the manager with the ability to draw conclusions about the environmental conditions.
270	1	objective	Environmental conclusion	The system shall provide the kitchen staff with the ability to draw conclusions about the environmental conditions.
271	1	objective	Waste detection	As soon as the kitchen staff places waste into the designated area, the system shall detect that there is waste.
272	1	objective	Water increase	As soon as an increase in water consumption is recorded, the system shall send relevant information to the kitchen staff.

[illegible]

Id	Count	Category	Subcategory	Requirement
273	1	objective	Buzzer trigger	As soon as the temperature reaches 180 °C and no person is operating the cooking stove, the system shall trigger a buzzer for warning
274	1	objective	Phone call	As soon as the temperature reaches 250 °C and no person is operating the cooking stove, the system shall call mobile phone of the kitchen staff
275	1	objective	Switch trigger	As soon as the temperature reaches 300 °C and no person is operating the cooking stove, the system shall turn off the cooking stove.
276	1	objective	Threshold	As soon as the temperature drops below the threshold of 180 °C or a person is operating the cooking stove, the system shall repeat the acquisition of the temperature level of the cooking stove.
277	1	objective	Access denial	If the employee is not registered or not allowed access, the system shall deny access to the kitchen.
278	1	objective	Automatic appliance configuration	If the classification is correct, the system shall configure the appliances in the kitchen environment according to the functions.
279	1	objective	Barrier opening	If the employee is registered and allowed access, the system shall open the barrier.
280	1	objective	Buffet opening	The system shall allow to open a buffet.
281	1	objective	Button press	As soon as the light control button is pressed, the system shall switch the light.
282	1	objective	Chipcard identification	As soon as the customer lifts the chip card to the chipcard reader, the system shall identify the chipcard.
283	1	objective	Chipcard identification	As soon as the kitchen staff lifts the chip card to the chipcard reader, the system shall retrieve the stored information from the chipcard.
284	1	objective	Chipcard request	As soon as the kitchen staff wants to enter the kitchen, the system shall request a chipcard.
285	1	objective	Chipcard request	As soon as the customer wants to open the trash bin, the system shall request a chipcard.
286	1	objective	Compost collection	As soon as the composting of waste is finished, the system shall initiate the compost collection.
287	1	objective	Compost collection	As soon as compost collection is initiated, the system shall collect the compost.
288	1	objective	Composting	As soon as the waste is shredded, the system shall put the waste into the compost.
289	1	objective	Control adjustment	The system shall provide the kitchen staff with the ability to adjust the assignment of a light control.
290	1	objective	Control adjustment	The system shall provide the manager with the ability to adjust the assignment of a light control.
291	1	objective	Control adjustment	The system shall provide the kitchen staff with the ability to control the light inside the kitchen based on their demand.

[illegible]

Id	Count	Category	Subcategory	Requirement
292	1	objective	Control adjustment	The system shall provide the kitchen staff with the ability to control the light inside the kitchen in different zones.
293	1	objective	Control assignment	The system shall allow to assign a light control to a lamp.
294	1	objective	Control assignment	The system shall allow to assign a light control to a zone.
295	1	objective	Cooking utensil with sensors	As soon as the kitchen staff starts the dish preparation, the system shall provide the kitchen staff with the ability to use a cooking utensil with integrated sensors.
296	1	objective	Data persistence	As soon as the weight including the tolerance weight is accumulated, the system shall persist the data.
297	1	objective	Data persistence	As soon as the kitchen staff documents information about a good, the system shall save the information related to a good.
298	1	objective	Data persistence	As soon as the system has identified the type of waste, the system shall save the data persistently.
299	1	objective	Data persistence	The system shall store the collected data persistently.
300	1	objective	Data persistence	As soon as the system documents a violation, the system shall save it persistently.
301	1	objective	Documented events	If the system does identify a violation of hygiene regulations, the system shall document the violation.
302	1	objective	Entry of kitchen staff	As soon as the stored information from the chipcard is retrieved, the system shall check whether the employee is allowed to enter the kitchen.
303	1	objective	Entry of kitchen staff	The system shall allow the kitchen staff to enter the kitchen.
304	1	objective	Error detection	The system shall detect any lightning errors.
305	1	objective	Gas acquisition	If the predicted room temperature exceeds a certain threshold, the system shall acquire gases inside the kitchen environment.
306	1	objective	Kitchen environment capturing	If the system does not identify any objects, the system shall take another picture.
307	1	objective	Kitchen environment capturing	If the system does not identify a violation of hygiene regulations, the system shall take another picture.
308	1	objective	LED lightning	If the employee is registered and allowed access, the system shall light up an LED.
309	1	objective	Light adjustment	The system shall provide the kitchen staff with the ability to set the lightning status inside the kitchen.
310	1	objective	Light adjustment	The system shall provide the manager with the ability to set the lightning status inside the kitchen.
311	1	objective	Light intensity adjustment	The system shall allow to adjust the intensity of a light.
312	1	objective	Light intensity adjustment	The system shall allow to adjust the intensity of a zone.
313	1	objective	List of tasks	If the classification is correct, the system shall provide a list with tasks to be performed by the kitchen staff.

Id	UC1	UC2	UC3	UC4	UC5	UC6	UC7	UC8	UC9	UC10	UC11	UC12	UC13	UC14	UC15	UC16	UC17	UC18	UC19	UC20	UC21	UC22	UC23	UC24	UC25
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Id	Count	Category	Subcategory	Requirement
314	1	objective	Manual assignment	If the classification is incomplete, the system shall provide the kitchen staff with the ability to assign events to a cluster that could not be assigned.
315	1	objective	Registration check	As soon as the stored information from the chipcard is retrieved, the system shall check whether the employee is registered.
316	1	objective	Regulation fulfillment check	If the system does identify objects, the system shall check for violations against hygiene regulations.
317	1	objective	Review	As soon as the natural language has been translated to machine-executable functions, the system shall provide the kitchen staff with the ability to check whether the classification is correct.
318	1	objective	Temperature acquisition	If the predicted room temperature is below a certain threshold, the system shall acquire the temperature inside the kitchen environment.
319	1	objective	Temperature acquisition	If the gas level is below a certain threshold, the system shall acquire the temperature inside the kitchen environment.
320	1	objective	Temperature prediction	As soon as three room temperature measures have been taken, the system shall predict the room temperature.
321	1	objective	Trash closing	As soon as the weight is displayed to the customer, the system shall close the trash bin.
322	1	objective	Trash opening	The system shall allow the customer to open the trash bin.
323	1	objective	Trash opening	As soon as the system identifies the chipcard, the system shall open the trash bin.
324	1	objective	Waste disposal	As soon as the system identifies the chipcard, the system shall provide the customer with the ability to dispose of his waste.
325	1	objective	Waste disposal	If the system identifies non-compostable waste, the system shall put the waste into the waste bin.
326	1	objective	Waste identification	As soon as the waste is detected, the system shall identify whether it is compostable.
327	1	objective	Waste shredding	If the system identifies compostable waste, the system shall shred the waste into small pieces.
328	1	objective	Welcome message display	If the employee is registered and allowed access, the system shall display a welcome message.
329	1	objective	Zones	The system shall provide the manager with the ability to create new zones without any physical adjustment.
330	1	objective	Zones	The system shall classify kitchen lights into zones.
331	1	objective	Error transmission	As soon as the system detects a lightning error, the system shall send an message about the error to the manager.
332	1	objective	Transmission to kitchen	If the gas level exceeds a certain threshold, the system shall send a message to the kitchen staff including the measured values.

[illegible]

Id	Count	Category	Subcategory	Requirement
333	1	objective	Transmission to kitchen	As soon as the temperature reaches 220 °C and no person is operating the cooking stove, the system shall send a message to mobile phone of the kitchen staff
334	2	objective	Transmission to kitchen	As soon as the nutritional information and amount of food are extracted, the system shall send the extracted information to the kitchen.
335	1	objective	Transmission to manager	If the gas level exceeds a certain threshold, the system shall send a message to the manager including the measured values.
336	2	objective	Transmission to customer	As soon as the nutritional information and amount of food are extracted, the system shall send the extracted information to the customer.
337	2	objective	Transmission to customer	As soon as the kitchen staff has approved the order and has entered a preparation time, the system shall send the information the customer.
338	2	objective	Transmission to nutritionist	As soon as the nutritional information and amount of food are extracted, the system shall send the extracted information to the customer's nutritionist.
339	2	objective	Waiter notification	As soon as the kitchen staff finishes the order preparation, the system shall send a message to the waiter.
340	1	objective	Menu display	The system shall provide the customer with the ability to view the menu.
341	1	objective	Menu adaption	As soon as the customer is logged in, the system shall adjust the menu according to the customers eating habits.
342	1	objective	Menu adaption	The system shall adjust the menu according to the availability of ingredients.
343	1	objective	Menu item selection	The system shall provide the customer with the ability to select items on the menu.
344	1	objective	Login option	The system shall provide the customer with the ability to login.
345	1	objective	Account creation	If the customer has no account to login to, the system shall provide the customer with the ability to create an account.
346	1	objective	Eating habit documentation	As soon as the customer has created a new account, the system shall provide the customer with the ability to enter his eating habits.
347	1	objective	Automatic login	As soon as the customer has entered his eating habits, the system shall route the customer to the login.
348	1	objective	Order submission	As soon as the customer has entered a table reference number, the system shall send the order of the customer to the kitchen staff.
349	1	objective	Order submission	As soon as the customer adjusts the order, the system shall send the order of the customer to the kitchen staff.
350	2	objective	Order adjustment	As soon as the customer receives the order approval information, the system shall provide the customer with the ability to adjust the order.
351	4	objective	Kitchen order display	The system shall provide the kitchen staff with the ability to view orders.
352	2	objective	Kitchen order display	The system shall provide the kitchen staff with the ability to gain a quick overview on current orders.

[illegible]

Id	Count	Category	Subcategory	Requirement
353	2	objective	Order details	The system shall capture orders including courts, drinks and customer preferences.
354	1	objective	Selection approval	The system shall provide the customer with the ability to approve the item selection.
355	1	objective	Table reference	As soon as the customer approves the menu item selection, the system shall ask the customer for a table reference number.
356	2	objective	Order approval	As soon as the kitchen staff receives an order, the system shall provide the kitchen staff with the ability to approve the order.
357	2	objective	Preparation time	As soon as the kitchen staff approves an order, the system shall provide the kitchen staff with the ability to enter the expected preparation time.
358	1	objective	Order submission	The system shall provide the customer with the ability to send an order to the kitchen staff.
359	1	objective	Customer preferences	As soon as the customer wishes to prepare a dish, the system shall provide the customer with the ability to enter personal preferences.
360	1	objective	Customer dish preference	The system shall capture which dish the customer wants to eat.
361	1	objective	Customer calorie requirement	The system shall consider the available amount of calories of the customer.
362	1	objective	Order UUID	The system shall allow unique identification of customer orders.
363	1	objective	Order recoding	The system shall capture orders by customers.
364	1	objective	Ingredient adjustment	As soon as the time to chew is calculated, the system shall adjust the filling pattern in the 3D model of the dish.
365	1	objective	Ingredient adjustment	As soon as the ingredients for the dish are adjusted, the system shall scale the selected dish accordingly.
366	1	objective	Ingredient adjustment	As soon as the permitted number of calories for the dish is calculated, the system shall apply them to the ingredients for the dish.
367	1	objective	Ingredient expiration	The system shall capture what available ingredients at the restaurant are about to expire.
368	1	objective	Ingredient expiration	The system shall capture the date of the available ingredients that are about to expire.
369	1	objective	Ingredient expiration	The system shall capture the type of the available ingredients that are about to expire.
370	1	objective	Ingredient expiration	If the availability of ingredients is requested, the system shall display which ingredients are about to expire.
371	1	objective	Ingredient availability	The system shall provide the kitchen staff with the ability to request the availability of ingredients.
372	2	objective	Ingredient availability	The system shall capture the available ingredients at the restaurant.
373	1	objective	Recipe creation	The system shall allow to add steps to the recipe.
374	1	objective	Recipe creation	As soon as a step is added to the recipe, the system shall query the user to define whether it is an analog or digital step.
375	1	objective	Recipe creation	The system shall allow to define parameters of the analog steps of the recipe.

Id	UC1	UC2	UC3	UC4	UC5	UC6	UC7	UC8	UC9	UC10	UC11	UC12	UC13	UC14	UC15	UC16	UC17	UC18	UC19	UC20	UC21	UC22	UC23	UC24	UC25
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Id	Count	Category	Subcategory	Requirement
376	1	objective	Recipe creation	The system shall support in the recipe creation process to ensure the usefulness of the recipe.
377	1	objective	Recipe creation	The system shall support in the creation process of a recipe within the digital and analog world.
378	3	objective	Recipe selection	As soon as the kitchen staff selects a dish to prepare, the system shall provide the kitchen staff with the ability to select a recipe.
379	1	objective	Customer recipe selection	As soon as the customer has entered personal preferences, the system shall provide the customer with the ability to select a recipe.
380	2	objective	Recipe display	The system shall provide the kitchen staff with the ability to view recipes.
381	2	objective	Recipe display	As soon as the kitchen staff starts the order preparation, the system shall provide the kitchen staff with the ability to view recipes of the ordered items.
382	1	objective	Recipe matching	As soon as the kitchen staff selects a order for preparation, the system shall automatically identify the related recipes.
383	2	objective	Recipe matching	As soon as the kitchen staff selects a court part for preparation, the system shall automatically identify the related recipe.
384	1	objective	Natural language analysis	As soon as the kitchen staff has selected a recipe, the system shall analyze the natural language of the recipe.
385	1	objective	Translation	As soon as the natural language of the recipe is analyzed, the system shall translate the natural language into machine-executable functions.
386	7	objective	Recipe capturing	The system shall capture recipes.
387	1	objective	Recipe saving	The system shall allow to save the recipe.
388	1	objective	Recipe addition	The system shall provide the kitchen staff with the ability to add recipes.
389	1	objective	Recipe editing	The system shall provide the kitchen staff with the ability to edit recipes.
390	2	objective	Automatic appliance configuration	The system shall capture the required preparation settings of appliances in the recipe.
391	1	objective	Automatic appliance configuration	The system shall provide the kitchen staff with the ability to automatically configure the appliances in the kitchen environment based on the selected recipe.
392	1	objective	Recipe flexibility	If the availability of ingredients is requested, the system shall provide the kitchen staff with the ability to replace ingredients inside the recipe.
393	1	objective	Recipe flexibility	As soon as the kitchen staff starts creating a new recipe, the system shall ensure flexibility in terms of taste.
394	1	objective	Recipe flexibility	As soon as the kitchen staff starts creating a new recipe, the system shall ensure flexibility in terms of presentation.
395	1	objective	Food 3D model	The system shall support adding a 3D model into the recipe.

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Id	Count	Category	Subcategory	Requirement
396	1	objective	Food 3D model parameters	As soon as a 3D model is added to the recipe, the system shall provide the kitchen staff with the ability to define the parameters of taste the model can have.
397	1	objective	Food 3D model parameters	As soon as a 3D model is added to the recipe, the system shall provide the kitchen staff with the ability to define the parameters of presentation the model can have.
398	1	objective	Recipe review	The system shall allow to review the recipe.
399	1	objective	Recipe sharing	The system shall allow to provision the recipe.
400	1	objective	Preparation time	As long as the kitchen staff prepares the order, the system shall provide the kitchen staff with the ability to view the expected preparation time.
401	2	objective	Order preparation	The system shall provide the kitchen staff with the ability to start an order preparation.
402	1	objective	Order preparation	As soon as the kitchen staff starts the order preparation, the system shall provide the kitchen staff with the ability to select the dish they wish to prepare.
403	1	objective	Order preparation	As soon as the kitchen staff starts the order preparation, the system shall provide the kitchen staff with the ability to select the court part they wish to prepare.
404	1	objective	Order preparation	As soon as the customer has selected a recipe, the system shall provide the customer with the ability to start the preparation.
405	1	objective	Order preparation	The system shall provide the kitchen staff with the ability to prepare multiple dishes of customer orders.
406	1	objective	Step-by-step guide	As long as the customer prepares a dish, the system shall provide the customer with an immersive step-by-step guide based on the recipe.
407	1	objective	Step-by-step guide	As long as the kitchen staff prepares a dish, the system shall provide the kitchen staff with an immersive step-by-step guide based on the recipe.
408	1	objective	Step-by-step guide	As soon as the optimum sequence is determined, the system shall provide the kitchen staff with the ability to follow a step-by-step guide.
409	1	objective	Preparation sequence	The system shall provide within the sequence what dish part has to be prepared on which cooking stove.
410	1	objective	Preparation sequence	The system shall provide within the sequence what dish part has to be prepared for how long.
411	1	objective	Preparation sequence	The system shall provide within the sequence how long the total preparation time is.
412	1	objective	Preparation sequence	As soon as the optimum sequence is determined, the system shall provide this sequence.
413	1	objective	Appliance settings	As soon as the kitchen staff starts the order preparation, the system shall provide the kitchen staff with the ability to adapt the required preparation settings on the appliances for preparation according to the recipe.
414	1	objective	Automatic stove adjustment	As long as the customer prepares a dish, the system shall automatically adjust the parameters of the cooking stove according to the recipe.

[illegible]

Id	Count	Category	Subcategory	Requirement
415	1	objective	Automatic stove adjustment	As long as the kitchen staff prepares a dish, the system shall automatically adjust the cooking stove.
416	1	objective	Automatic stove adjustment	As long as the customer prepares a dish, the system shall automatically adjust the parameters of the cooking stove according to the current weight of the cooking pans content.
417	3	objective	Automatic stove adjustment	As soon as the time for preparation according to the recipe is over, the system shall turn off the stove.
418	2	objective	Automatic stove adjustment	As soon as the kitchen staff lifts the pan off the cooking stove, the system shall turn off the stove.
419	1	objective	Automatic stove adjustment	As soon as the customer lifts the pan off the cooking stove, the system shall turn off the stove.
420	1	objective	Appliance notification	As soon as the preparation of a court component through an appliance has finished, the system shall notify the kitchen staff.
421	2	objective	Recipe parameter adjustment	As soon as the kitchen staff selects a court part for preparation, the system shall automatically apply the necessary parameters from the recipe to the cooking stove.
422	2	objective	Recipe parameter adjustment	As long as the kitchen staff prepares a court part, the system shall automatically adjust the parameters of the cooking stove according to the recipe.
423	2	objective	Recipe parameter adjustment	As long as the kitchen staff prepares a court part, the system shall automatically adjust the parameters of the cooking stove according to the current weight of the cooking pans content.
424	1	objective	Optimized preparation	As soon as the kitchen staff starts the order preparation, the system shall provide the kitchen staff with the ability to view the optimized preparation approach.
425	1	objective	Optimized preparation	As soon as the kitchen staff has provided recipes and available cooking stoves, the system shall determine the optimum sequence that maximizes food quality.
426	1	objective	Optimized preparation	As soon as the kitchen staff has provided recipes and available cooking stoves, the system shall determine the optimum sequence that minimizes preparation time.
427	1	objective	Optimized preparation	As soon as the kitchen staff has provided recipes and available cooking stoves, the system shall determine the optimum sequence that minimizes energy costs.
428	1	objective	Error fixing	As soon as an error appears during the optimum sequence determination, the system shall provide the kitchen staff with the ability to fix the error.
429	1	objective	Food print	As soon as the filling pattern of the model is adjusted, the system shall print the dish.
430	1	objective	Appliance errors	As long as the kitchen staff prepares the order, the system shall provide the kitchen staff with the ability to view error messages from the used appliances.

[illegible]

Id	Count	Category	Subcategory	Requirement
431	1	objective	Waiter display	As soon as the waiter collects the finished order, the system shall provide the waiter with the ability to view the order.
432	1	objective	Waiter display	As soon as the waiter collects the finished order, the system shall provide the waiter with the ability to view the table reference.
433	1	objective	Waiter order served	As soon as the waiter has served the order, the system shall provide the waiter with the ability to mark the order as serverd.

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