Business Analysis and Application

For 19-1

# Patrick *Five* Star Hotel

*Patrick Five Star Hotel* is an internationally recognized as a five-star hotel on the island of *Bikini Atoll*, *Micronesia*. Located north of the equator, this place was a place for nuclear testing since *World War 2* until December 1945, but now this place is open for tourist. Seeing the potential as one of the very few hotels that runs on island full of tourists, *Patrick Five Star Hotel* opened branch across many islands such as *Pari*, *Tidung*, *Okinawa*, *Nami*, *Hawaii*, etc.

In order to improve hotel management and guest satisfaction, *Patar* as the *Patrick Five Star Hotel*’s manager demands you to develop a system that can help them to manage business activity within the hotel. He also provides you the complete business process of *Patrick Five Star Hotel* as stated below:

# Room Division

This division provides most of guests’ needs such as customer service, room reservations, room cleanness, and so on. They hold the hotel’s reputation since they need to ensure smooth processes and high compliance in terms of guest relation.

*Every hotel or motel or resort has a rooms division, so you must understand that it is the* ***lifeline*** *of hotel operations.*

In order to run smoothly, this division is divided into *Receptionist* department and *House Keeping* department. Here is the specific task for each department:

## Receptionist

*Receptionist* is the first point of contact for the hotel. Their duties include aiding guests to reserve room, welcoming people who visit the hotel, manage room check-in and check-out, payments, and other guest needs along with their critics and complaints.

*Patrick Five Star Hotel* mostly works with travel agents, but they also serve reservation by individual guest. Every reservation that is made by guest must be recorded. When the guest check-in, *Receptionist* will ask for the guest’s passport and other documents to ensure their eligibility and register the data to their system if they are new to *Patrick Five Star Hotel*. *Receptionist* will also ask some deposit money from guest. Deposit’s purpose is to ensure hotel receives remuneration in case the guest used extra services or violate the regulation. After that, *Receptionist* will give them room card and brunch tickets based on number of days they will stay. The brunch ticket contains a unique QR Code to identify guest’s eligibility to enter the *Dining Room*.

Figure 1 Patrick Five Star Hotel Room Card (front)



Figure 2 Patrick Five Star Hotel Brunch Ticket

Sometimes, some guest lost their *brunch ticket* and report it to the *Receptionist*. When encountered with such cases, the *Receptionist* will ask them for their *room card* and check whether they really lost the tickets or not. If they really do, *Receptionist* can replace the ticket with penalty of deducting their deposit money.

In case the guest lost or damaged their *room card*, *Receptionist* will verify the guest’s identity by passport or identity card and check their eligibility in the hotel. After that, *Receptionist* will replace the card with a new one and deduct guest deposit money.

When the guest decides to check-out, the *Receptionist* will order *House Keeping* department to make-up room and check for room’s minibar items and equipment’s condition. If guest damage some room equipment or consume minibar items, *Receptionist* will calculate additional charges and deduct guest’ deposit before return it to them. If the user did some rule violation or lose their ticket/card, *Receptionist* will also deduct the deposit. Every deposit deduction must include deduction detail of amount and why it is deducted.

There are also case where the user cancels their reservation. If the cancellation was done less than one day before check-in day, the guest will be charged cancellation fee according to the ***one-night penalty*** policy. Every midnight, the system will save every reservation whose check-in will happen on the next day to the transaction table. If the reservation was cancelled by the user before moving to transaction, the system will ignore them.

*Hotels typically charge a one-night cancellation policy, whereby if you don’t cancel the reservation 24 hours prior to the hotel check-in time (in their time zone), you’ll be charged a full night of room rate, regardless of how long your stay is.*

Every month, *Receptionist* will submit a *monthly report* to *Financial and Accounting* department for further processing. There is various report that is needed to be submitted, such as transaction and payment data. Beside *monthly report*, *Receptionist* also send all guest reviews and complaints to the *Sales and Marketing* department.

## House Keeping

Every guest that stayed at *Patrick Five Star Hotel* can choose whether they want *House Keeping* to make-up their room or simply don’t disturb. Every morning, *House Keeping* will come to every room that is marked as *make-up my room*and make-up the room. The *House Keeping* will ignore every room whose guest is scheduled to check-out on that day since *Receptionist* department will request them to make-up the room when the guest check-out.

When making-up the room, *House Keeping* will also check whether the guest consumes minibar items. If they do, *House Keeping* will replace and accumulate them until the day when guest do check-out and report them to *Receptionist* department. They will also check for room equipment’s condition for further charging if the guest accidentally damage them.

*House Keeping* also have a list of supplies available. They can also set the minimum stock for each supply, so they know when to restock the supply. When the stock hit the bare minimum, *House Keeping* will receive a notification so they can send a purchase request to *Purchasing* department.

# Food and Beverage

Located at island rich of natural resources such as quality fish, meat, and local fruits, *Patrick Five Star Hotel* tries to offer their guest the best of the local dishes. They even hired famous chefs who are trained directly under *Spongebuck* the famous fry-cook to ensure their food quality.

To maximize food distribution for the guests, the *Food and Beverage* division is divided into three major department:

## Dining Room

*Patrick Five Star Hotel* has a dining room that opens every morning until afternoon. However, the dining room only serve food to the guest of the hotel. Before a guest can enter, *dining room’s waiter* must first check the validity of their *brunch ticket*. Even though the *tickets* will be returned to the guest, each ticket can only be used once. After that, the guest can enter and eat to their heart content.

Since the dining room used *All You Can Eat (AYCE)* service, the dishes on the dining room need to be refilled when they run out of stock. The *waiters* will watch over the stocks and if they are running low, *waiters* can send *kitchen* department request to cook and refill the dish.

There are also cases where the guest lost their *brunch ticket*. If such thing happens, *waiter* will direct them to report to the *Receptionist* to be further processed.

## Room Service

Beside the *AYCE* service from *Dining Room* department, guest can also order food from their own room. They can call the *Room Service* department via telephone to order food according to the menu that is available on every room. If a guest wants to be served first, they can order the food with *VIP* priority with higher price.

Every order will be forwarded to the *Kitchen* department. The order will also state the priority of the order. Whenever an order completed by *Kitchen* department, the *Room Service* will receive a notification. After that, they will deliver the food to the guest to complete the order.

## Kitchen

*Kitchen* departmentmanages cooking request sent by both *Dining Room* department and *Room Service* department. They cook the food according to the order priority given by each order. Note that *Dining Room’s* orders are treated as a normal order.

To cook a food, a *chef* needs to follow recipe that contains combination of ingredients. Every ingredient in the kitchen has its own stock. The *chef* can set bare minimum of an ingredient stock. When the ingredient hit the minimum stock allowed, *chefs* will receive a notification to restock them. To do a restock, *chef* will need to send purchase request to the *Purchasing* department.

# Administration

The Administration division ensures the efficient performance of all departments in an organization. They act as a connecting link between the senior management and the employees. They provide motivation to the work force and make them realize the goals of the organization.

*It is important to consider the Administration team as one of the key foundations associated with a high level of workplace productivity and efficiency. It is very demanding to run an organization without an effective Administrative team and keep in mind that this team is the gateway of the success of your business and the sustainability of your current clientele and those of the future.*

This division is divided into five departments, with each department’s job described below:

## Purchasing

*Purchasing* department manages every purchase needed by other departments. They check every purchase request and decides whether they will approve or reject the request. If they decide to accept the request, they will calculate the predicted amount of money to buy the item. After that, they will request fund from the *Accounting and Finance* department. *Purchasing staffs* will buy the requested item if only their fund request is approved by *Accounting and Finance* department. The *Purchasing staffs* need to give reason if they decide to reject the request.

By the end of the month, *purchasing staffs* will compile all purchase requests that get through them into a report and send it to the *Accounting and Finance* department to be further processed.

## Accounting and Finance

*Accounting and Finance* department is entrusted with the hotel’s financial affairs. Every cent of money must go through the *Accounting and Finance’* hand before they can be spent. Since they decide the future of hotel’s money, their team’s personnel are all handpicked by *Patar* and his best friend, *SpongeGar* the yellow sponge and *Squog* the turquoise squid.

The *handpicked accountants* will manage every fund request that is requested to them. Theywill examine the purpose of the fund request before deciding to approve. Departments whose request is approved will receive fund according to their request.

Every month, *Accounting and Finance* will receive reports from many departments, such as ***Sales Report***from *Receptionist* department and ***Purchase Report***from *Purchasing* department. Based on these reports, *finance accountants* will summarize the financial report of that month. They will then hold a meeting to discuss the validity of the report and other financial-related problem to ensure the report’s genuineness. After confirming that, they will send it to the *Hotel Manager* as the monthly report.

## Sales and Marketing

*Sales and Marketing’s* duty is to maximize guest numbers. They are tasked to deal with travel agents to increase sales. They are also asked to create attractive, creative, and interactive advertisements such as *banner* and *promotion videos* to attract new potential guests to stay at their hotel.

To create high quality advertisements, they will need certain amount of funds. Every time they need to create new advertisement, *Sales and Marketing staffs* will need to request fund from the *Accounting and Finance* department. They will start creating advertisements only after *Accounting and Finance* department approved their fund request.

Every month, *Sales and Marketing* will calculate sales percentage and compare them to previous month’s sales. They will also pick important guest complaints from *Receptionist*’s report. After that, they will forward the report to the *Hotel Manager* so the manager can decide next step that the hotel will take.

## Human Capital

*Human Capital (HC)* monitors *Patrick Five Star Hotel’s* employees’ needs, such as salary and benefits. To fulfill their job, they can see all employees’ salary amount. They can also raise employee’s salary. To raise salary, they need to send *salary raise request* to the *Hotel Manager*. An employee’s salary can be raised only if the request is approved by the *manager*.

*HC* department also tasked to control employee hiring and firing. They will monitor employees and see whether every employee do their job correctly or not. If an employee has proven to do fatal mistake or didn’t do their job correctly, they can decide to fire the employee. *HC staff* will collect evidence and reasons before sending them to the *manager* before firing them.

Every month, if there are employee fired or resigned, *HC* department will open job vacancy. The job vacancy will be announced at newspapers. Every *candidate* that responds to it will be selected through some process before they are accepted as a new employee.

Posting announcement at newspapers will need some amount of money. *HC staff* will request the funds from *Purchasing staff* for it. *HC staff* will also ask funds every end of the month to pay for employees’ salary.

## Hotel Manager

Every *Hotel Manager* takes control over one *Patrick Five Star Hotel* branch. They decide the steps to be taken to improve the quality of services and overall operational activity. To achieve their job, they can see reports that was sent by *Accounting and Finance* department and *Sales and Marketing* department to determine or revise the hotel’s vision. For convenience, *managers* can view the report with many visualizations form.

Since each *Patrick Five Star Hotel* employs hundred to thousand employees, there will be some employees who decide to quit every month. Every employee who wants to resign needs to submit resignation letter to the *manager*. The letter must be submitted at least 3 months before the resignation month. The *manager* will then decide whether they allowed to resign or not. If they are allowed to, the manager will notify *HC staff* so they can plan for recruiting.

**IMPORTANT NOTES:**

* Analyze which data are allowed to be shown to a department and which are not. Only show the necessary data to each department.
* You can write your own analysis assumption in the diagram.
* You can create the application based on C#/JAVA and Access/SQL Server/MYSQL/POSTGRE for the database.
* Your application must authenticate user based on roles.
* Application must minimalize human error.
* All data are soft deleted.
* Your application must be programmed based on analysis diagram you made.
* You must create analysis diagram consist of
  + Activity Diagram
  + Class Diagram (Updated Class Diagram with **relationship**)
  + Use Case Diagram
  + Full Use Case Description (min 5 and not identical)
  + Multi-layer Sequence Diagram (min 5 with **fragment** and not identical)
* All diagrams must use **Satzinger** concept.
* Every employee receive notification when there is task for them to complete.
* Use Agent Job / Event Scheduler to move reservations to transaction table.

 “Hardwork and Extraordinary Effort Make Success Come Closer”