



American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science & Technology (FST)

CSC3112 SOFTWARE ENGINEERING

Section: C

Group No: 3

SMART ASSISTANCE PROVIDER

A SOFTWARE ENGINEERING PROJECT SUBMITTED By:

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OBJECTIVES :

The name of our project is smart assistance provider which has a lot of features. For every tour there must be a tour plan. By using our project everybody has a clear knowledge for their desire tour and knowledge. We are including all the tourist spot in our country. If anyone want to use our project then first he/she must registration or if anyone wants to be a guide then he/she also registration in our project. By using our project everybody can rent a hotel, set up a desire destination, hiring a guide, booking bus/train/Air tickets, check in restaurants. And the user can also rate the guide.

BENEFITS:

Smart Assistance provider is a smart marketing strategy. They decrease cost because product demonstration could be done without personal meetings, expensive presentations, in different time zones, without extra travel cost. Smart Assistance provider will save your time and money. There is a lot of benefit of our project. We can rent hotel, vehicles, hire a guide, check out the restaurant, shopping mall and all the cost of the entire tour. So it will be beneficial for the user and guide.

PROBLEM AND SOLUTIONS :

SAP is a travel software that helps travel companies to manage bookings, package customization, itinerary generation for travel products such as hotel, flight, transfer, and activity to automate sales and finances to increase bookings and revenues. Travellers faces different kind of problems when then wants to travel at any tourist spot. By using sap, travellers globally save their time and get connected with our travel agencies. It is a solution for running travel agencies and letting users easily select their destination and book their listing.

Features:

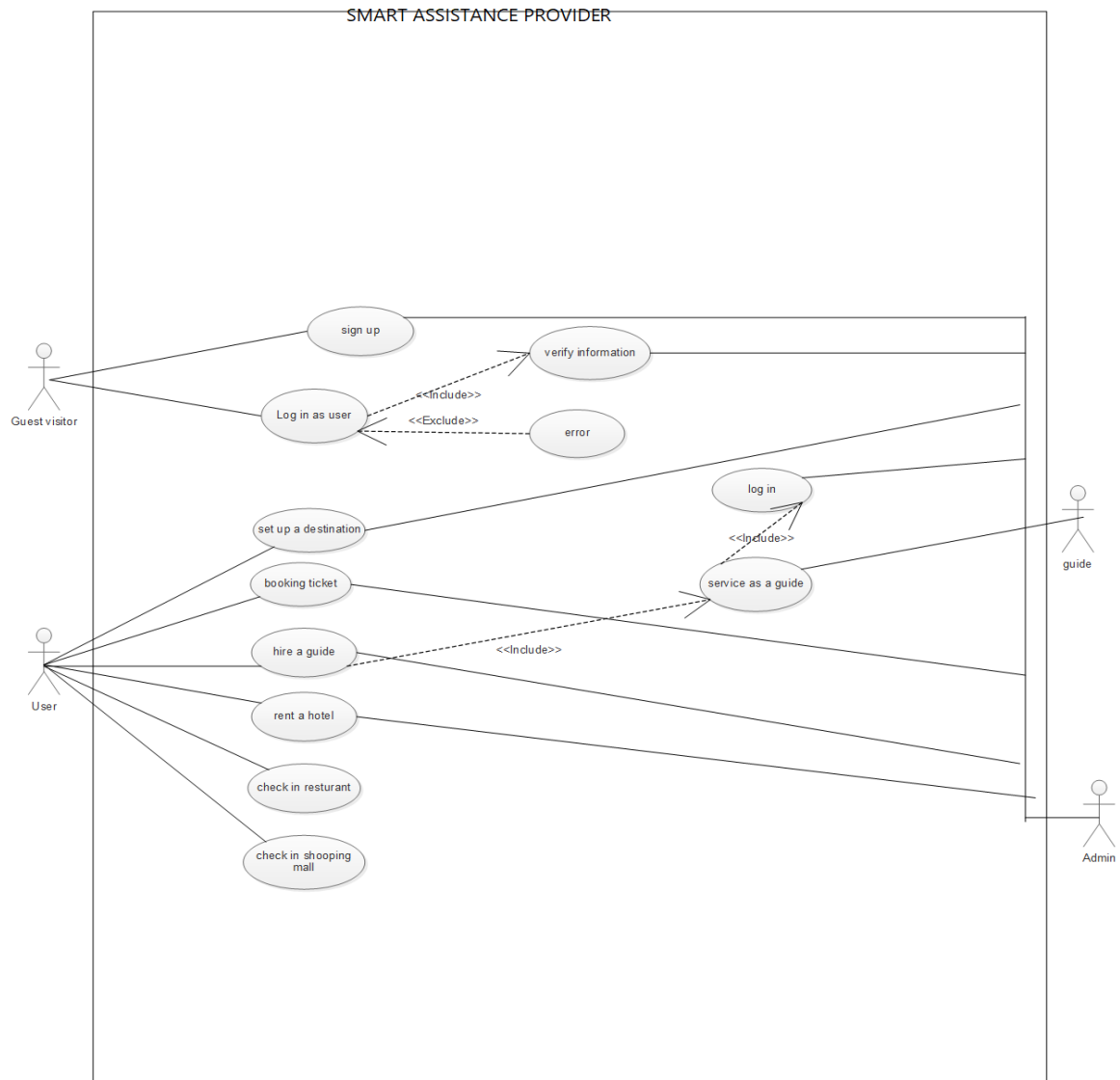
- 1.registration as a user
- 2.registration as a guide
- 3.set up a destination
- 4.booking ticket
- 5.managing guide
- 6.managing hotel
- 7.Check in restaurant
- 8.shooping mall.

REQUIREMENTS :

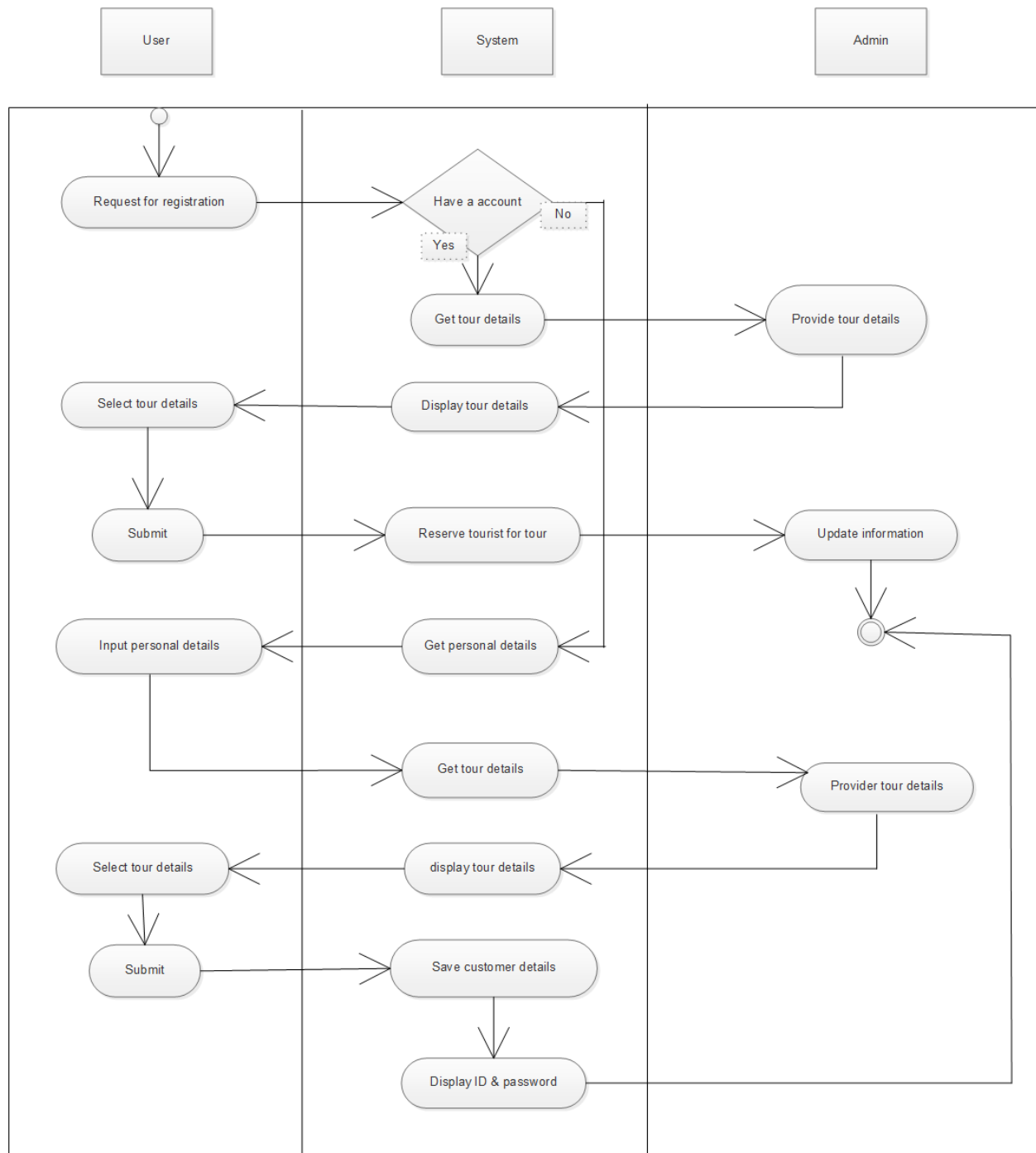
- 1) Registration as a User : firstly user have to sign up into the system to maintain the customer information in case of emergency. In the sign up session customer must provide his User_Id and password.
- 2) Login as User : A Registered user can directly login in our system. And take all the facilities of the System.
- 3) Registration as a Guide : If anybody wants to admit as a Guide then first he/she needs to sign up into the system. For the security issue every Guide have to give their personal details , Guide_Id and password.

- 4) Login as a Guide : A Registered guide can directly login in our system. And take the contract to guide the visitor who already hire you for the tourist spot.
- 5) Set up destination : Our “SMART ASSISTANCE PROVIDER” Provides all the Tourist Spot of our country and it also provide the cost of the entire tour plan. So every user can set tour plan of this desire area.
- 6) Booking Ticket: Booking Ticket: After log onto the system the registered user can book their ticket from the website. When the seat is confirmed by the traveller, the system charges the price of the ticket to the credit card number of the user. It creates a confirmation number and shows it for the traveller. Then the ticket has been booked for the user.
- 7) service offer as a guide:a guide can offer to show around the city for a small fee. He is a expert of the history of the location. All the guides place a gig to offer their service .
- 8) Hire a Guide: Traveller can choose their own guide by knowing their qualification and experience in their desired destination. Travel guide usually know about the historical sights, restaurants, transportation and the map of the spot.
- 9) Rent-a hotel:From this system user can find many hotel around his location and they can book this as they want.
- 10) Check in restaurant:From this Feather user can see many restaurants in their area and they can choose as their requirements and also show their bill.
- 11) Shopping mall:On the system user can find most visited shopping mall around his or her location.Also user can get some discount voucher which can be redeemable in selected shopping malls.

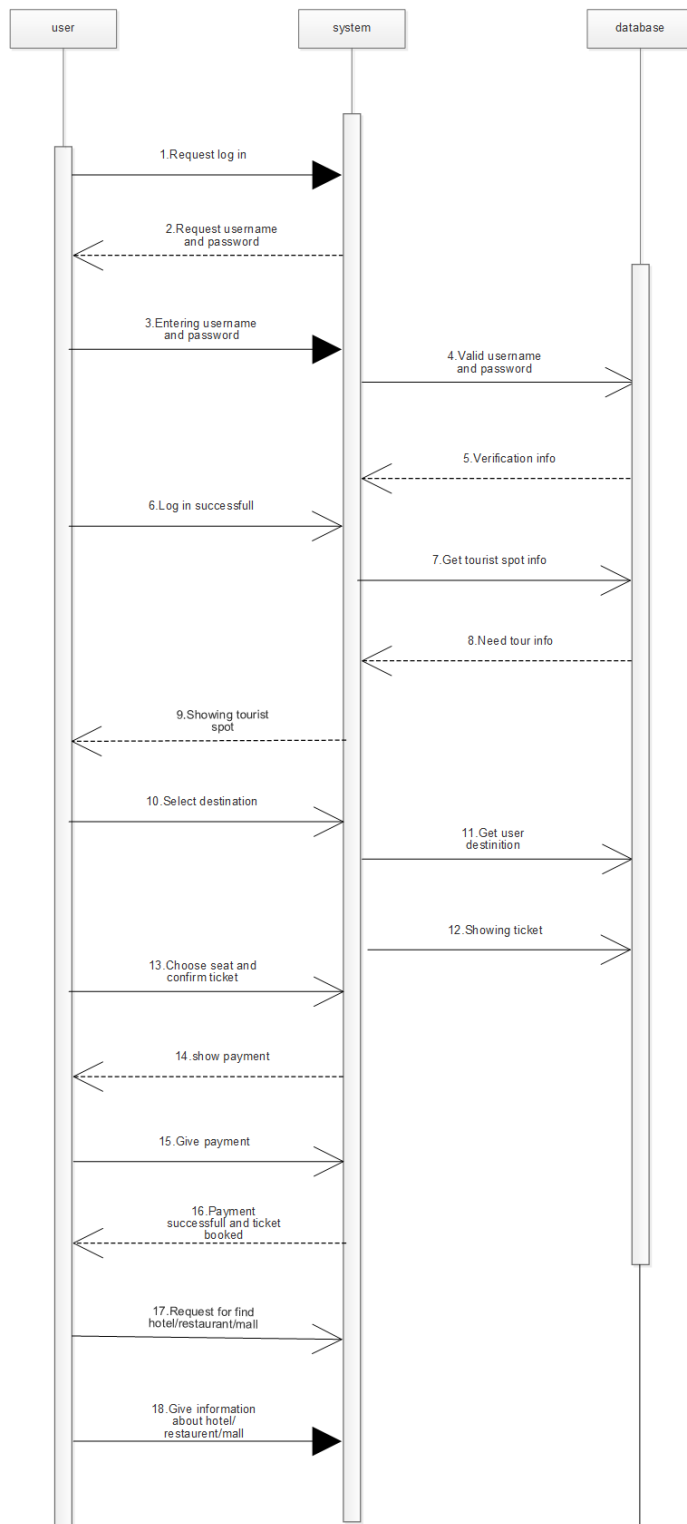
Use case diagram:



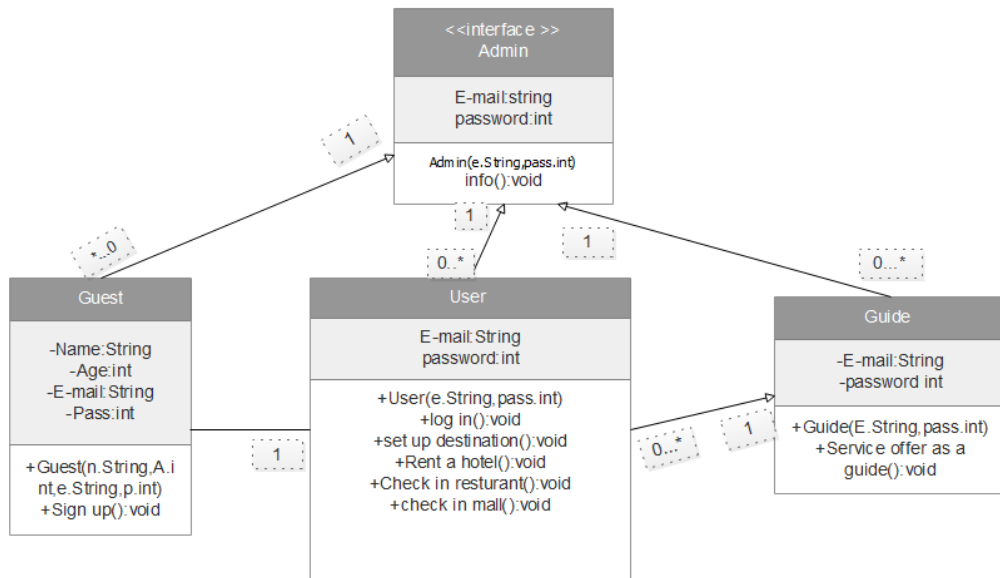
Activity diagram:



Sequence diagram:



Class diagram:



Selection of process model

The name of our project is smart assistance provider which has a lot of features. For every tour there must be a tour plan. By using our project everybody has a clear knowledge for their desire tour and knowledge. By using our project everybody can rent a hotel, set up a desire destination, hiring a guide, booking bus/train/Air tickets, check in restaurants. And the user can also rate the guide. .So we are selected a method to develop our software which is **Extreme Programming (XP)Agile Model**. We have choose this model because,

1. Changing requirements according to customer's need.
2. Users and developers can work together.
3. Admin can change any part of the code at any time.
4. Focus on the simplest design that works to satisfy the client's need.
5. This Process is visible and accountable.

ROLES:



User : Customer's can fulfill their recruitments by this model.

Programmer : keeps the program as simple as possible.

Tracker : Gives feedback and traces the estimates made by the team.And gives feedback on how accurate they are in order to improve future estimates.

Admin : Admin makes the decisions and choose the right way.

Software Design

SMART ASSISTANCE PROVIDER			
Login Register		<input type="text" value="Search here"/> 	
Home	Message	Feature	About Us
			
Where are you going???			
<input type="text" value="Type a city"/>	<input type="text" value="Select a date"/>	<input type="text" value="Search"/>	
Contact us	Feedback		

SIGNUP

BACK

BACK

EMAIL_ID...

PASSWORD...

LOGIN

SMART ASSISTANCE PROVIDER

Search here

Profile | logout



BOOKING TICKET

HIRE A GUIDE

SET UP A DESTINATION

CHECK IN RESTURANT

RENT-A-HOTEL

SHOOPING MALL

BACK

NEXT

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Set up Destination

[BACK](#)[NEXT](#)

SMART ASSISTANCE PROVIDER

Search here

Profile | logout



Ticket Booking

Bus /Flight

Day to Travel

Return Date

Submit

BACK

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Hire a guide

Place: Dhaka	Select District : Dhaka ▼	Search Now
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Dhaka

Name	Rating	Charge/ Hour (TK)
Sabbir Hossain	4.6	700
Jakia Nupur	4.5	800
Siamul Bari	3.8	280
Tilottama Meem	4.4	650



Rent a Hotel

[BACK](#)



LOOKING FOR ANY
RESTAURANT?

SEARCH HERE

BACK

NEXT

SHOOPING MALL

SEARCH



BACK

NEXT

PAYMENT

CREDIT CARD NUMBER

PIN NUMBER

MONEY AMOUNT

CONFIRM

BACK

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Software Testing

We have decided to work on a particular system which is a website.

Selected modules for testing:

- a. Signup Session
- b. Login Session
- c. Features
- d. Booking Ticket
- e. Hire Guide
- f. Rent Hotel
- g. Payment Session
- h. Messaging

This project work basis on both white box testing and black box testing.

Signup, Login, Booking Ticket, Hire guide, Rent Hotel, Payment these modules are work basis on Blackbox testing. Black box testing is normally use when we don't need to know how the functionality works.

Features and Messaging these two modules use as white box testing. Because the definition of white box is work basis on their developer and programmer.

Performing test cases with bug report

Test Case ID: SAP-01		Test Designed date: 11-07-2021		
Test Priority (Low, Medium, High): Medium		Test Executed by: jakia sultana		
Module Name: Signup Session		Test Execution date: 11-07-2021		
Test Title: verify signup with valid email id and password				
Description: Test website Signup page				
Precondition (If any): User must have valid Email id and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter Email Id 3. Enter password 4. Retype password 5. Signup	Email: jakia@gmail.com Password: 321 Retype password: 321	User should Signup into the application		Pass
Post Condition: User is validated with database and successfully Signup to account.				

Test Case ID: SAP-02		Test Designed date: 11-07-2021		
Test Priority (Low, Medium, High): Medium		Test Executed by: Tilottama Meem		
Module Name: Login Session		Test Execution date: 11-07-2021		
Test Title: verify Login with valid email id and password				
Description: Test website Login page				
Precondition (If any): User must have valid Email id and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
6. Go to the website 7. Enter Email Id 8. Enter password 9. Login	Email: tilottoma@gmail.com Password: 321	User should login into the application		pass
Post Condition: User is validated with database and successfully Login to account. The account session details are logged in the database.				

Test Case ID: SAP- 03			Test Designed date: 11-07-2021	
Test Priority (Low, Medium, High): Medium			Test Executed by: Siamul Bari	
Module Name: Features			Test Execution date: 11-07-2021	
Test Title: Showing all the features				
Description: Test website feature page				
Precondition (If any): user must be login into the website				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
10. Go to the website 11. Login successfully 12. Go to feature		1. Setup destination 2. Booking ticket 3. Hire a guide 4. Rent a hotel 5. check in restaurants 6. Shopping mall	As expected	pass
Post Condition: All the feature are available for the user.				

Test Case ID: SAP- 04		Test Designed date:11-07-2021		
Test Priority (Low, Medium, High): High		Test Executed by: Siamul Bari		
Module Name: Ticket Booking		Test Execution date:11-07-2021		
Test Title: Booking Ticket for tour.				
Description: Test website ticket booking page				
Precondition (If any): User must select bus/flight, their flight time and return date.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
13. Go to the website 14. Login/signup successfully 15. Click features 16. Select Booking ticket 17. Select Bus/ flight 18. Select time 19. Select return date 20. Click submit	Bus/Flight: Bus Day to travel: 01-08-2021 Return Date: 10-08-2021	All the details must be available for user and booked ticket successfully		Pass
Post Condition: User book their ticket successfully.				

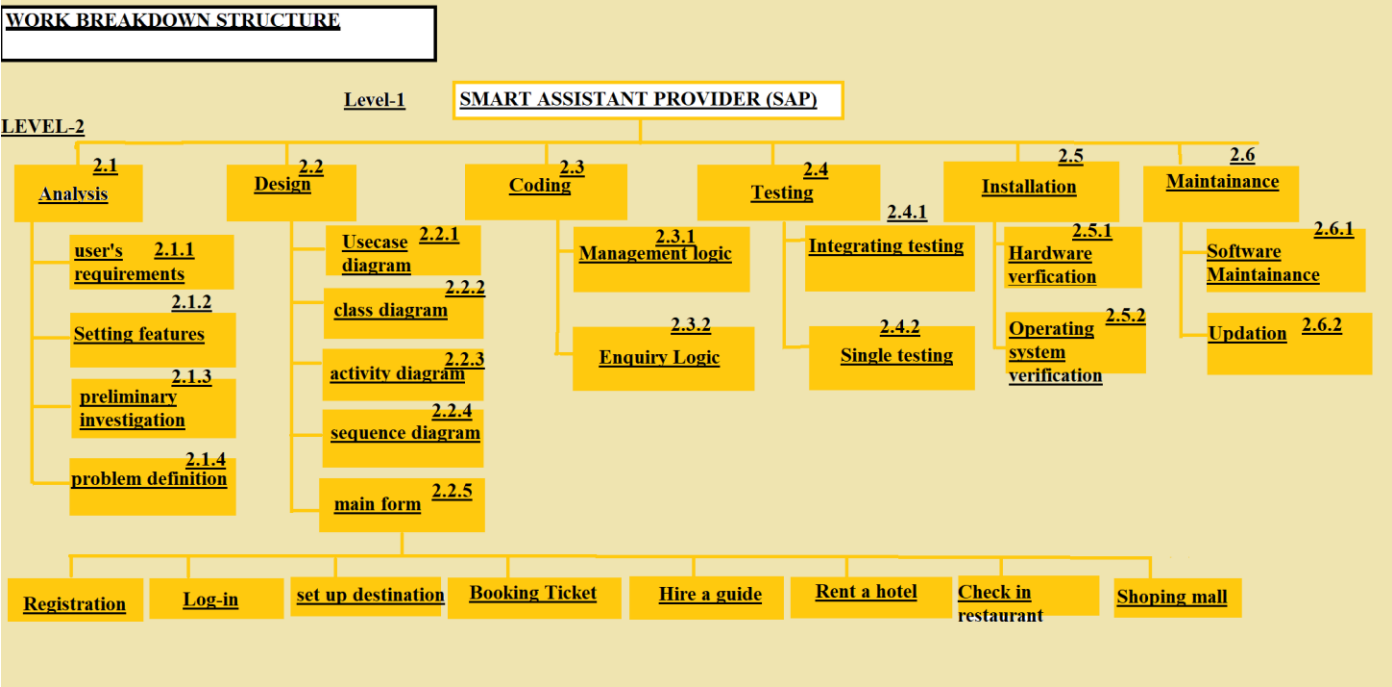
Test Case ID: SAP- 05			Test Designed date: 11-07-2021	
Test Priority (Low, Medium, High): Medium			Test Executed by: Sabbir Hossain	
Module Name: Hire Guide			Test Execution date: 11-07-2021	
Test Title: Hire a guide by searching specific destination				
Description: Test website Hire a Guide page				
Precondition (If any): User must have to select specific place and district.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
21. Go to the website 22. Login successfully 23. Click features 24. Select hire a guide 25. Select a place 26. Select district 27. Click search button	Place: Dhaka District: Dhaka	Guide Name: Sabbir Hossain Anik Rating: 4.6 Charge/Hour(TK): 700 All the details of guide must be shown to user. Then user can choose any guide.		Pass
Post Condition: User choose their tour guide.				

Test Case ID: SAP- 06		Test Designed date: 11-07-2021		
Test Priority (Low, Medium, High): Medium		Test Executed by: jakia sultana		
Module Name: Rent Hotel		Test Execution date: 11-07-2021		
Test Title: Rent any hotel in tourist spot				
Description: Test website Rent Hotel page				
Precondition (If any): User must have to select any available hotel, Check in date and number of guests.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
28. Go to the website 29. Login Successfully 30. Click features 31. Select Rent a hotel 32. Select any hotel, date, number of guests. 33. submit	Hotel Name: Royal Blue. Check in date: 10-07-2021 Check out date: 15-07-2021 Number of guests: 04	User should rent a hotel easily.	As expected	Pass
Post Condition: User is validated with database and successfully rent a hotel.				

Test Case ID: SAP- 07		Test Designed date: 11-07-2021		
Test Priority (Low, Medium, High): Medium		Test Executed by: Sabbir Hossain		
Module Name: Payment Session		Test Execution date: 11-07-2021		
Test Title: Payment				
Description: Test website Payment page				
Precondition (If any): User must have to setup a destination and book ticket.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
34. Go to the website 35. Login Successfully 36. Click features 37. Set up destination 38. Booked ticket 39. Click payment 40. Give credit card number 41. Give pin number 42. Select money amount 43. submit	Credit card NO: 00099987665 PIN NO: 887765 Money Amount: 2000	User should successfully pay the bill.	As expected	Pass
Post Condition: User is validated with database and successfully pay the bill.				

Test Case ID: SAP-08		Test Designed date:11/7/2021		
Test Priority (Low, Medium, High): Medium		Test Executed by: Jakia Sultana		
Module Name: Message		Test Execution date:11/7/2021		
Test Title: Message				
Description: Test website Message Page				
Precondition (If any):				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Sign in/ Log in 3. Go to the Message 4. Select Participant	Hi there.	Message will be delivered successfully.	As expected	Pass
Post Condition:				

WBS and Effort Estimation



Project Scheduling

Based on SLOC characteristic, and operates according to the following equations:

Here using organic software project type,

SLOC = 6000

Now,

$$\text{Effort} = \text{PM} = \text{Coefficient} \times (\text{Effort Factor}) \times (\text{SLOC}/1000)^P$$

$$= 2.4(6000/1000)^{1.05}$$

$$= 15.749$$

$$\text{Development time} = \text{DM} = 2.50 \times (\text{PM})^T$$

$$= 2.50 \times (15.749)^{0.38}$$

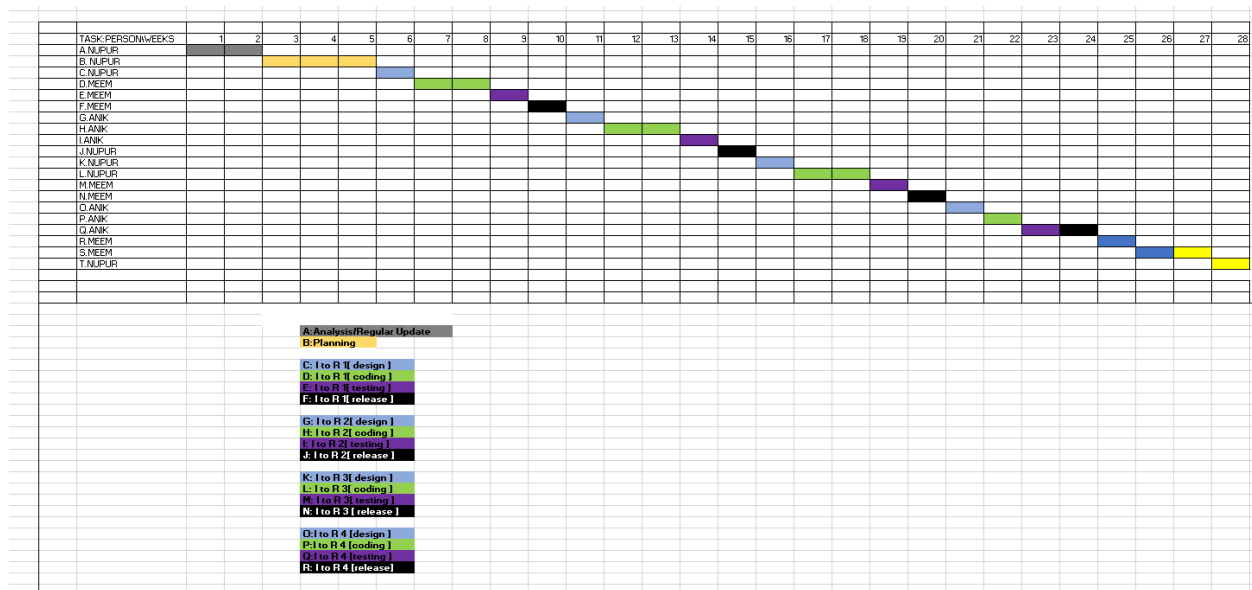
$$= 7.126 \text{ (Month)}$$

$$\text{Required number of people} = \text{ST} = \text{PM}/\text{DM}$$

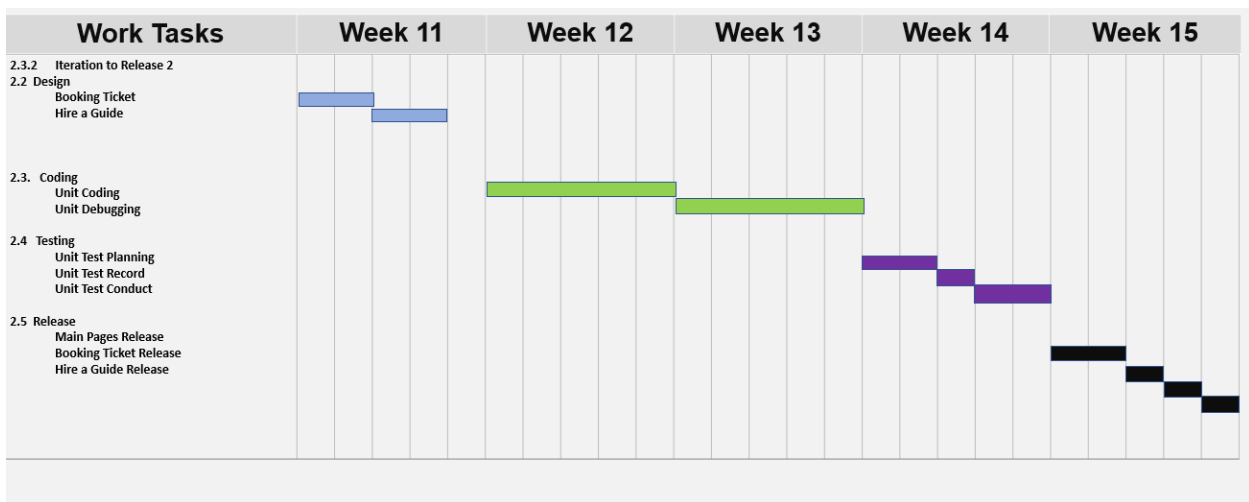
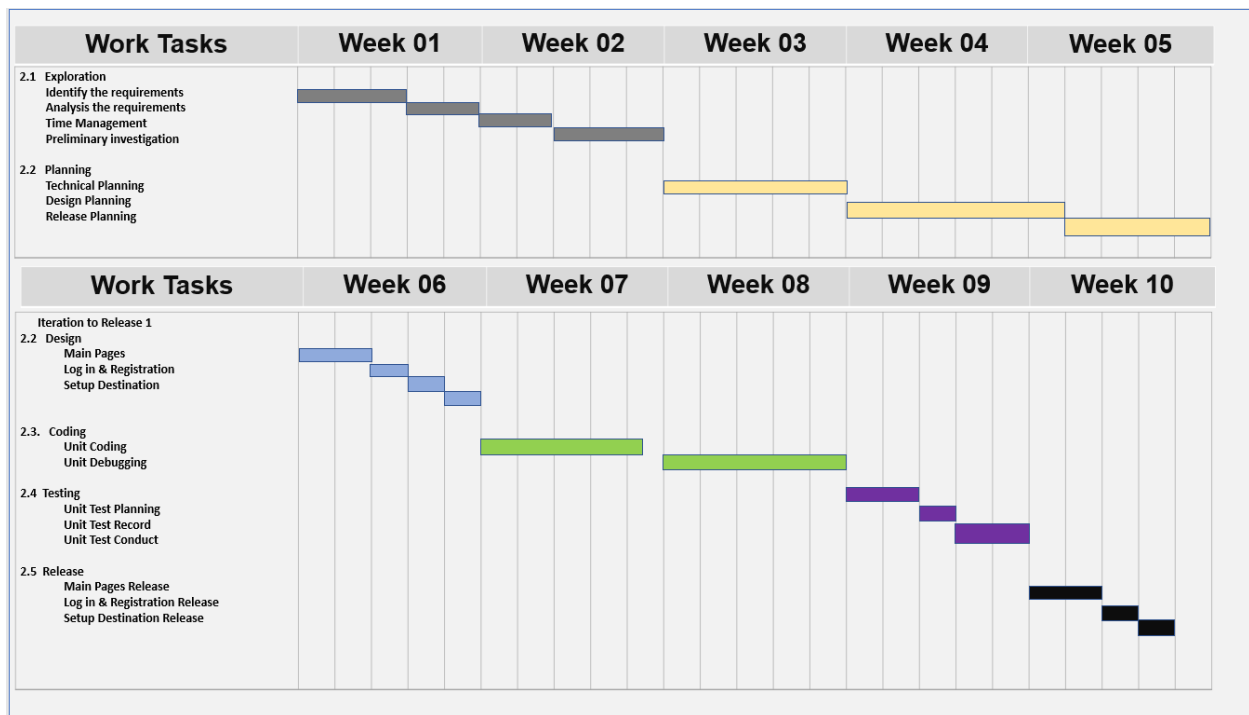
$$= 15.749/7.126$$

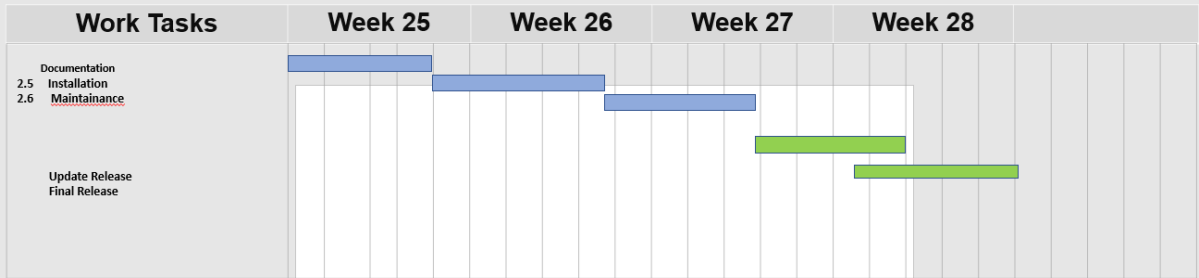
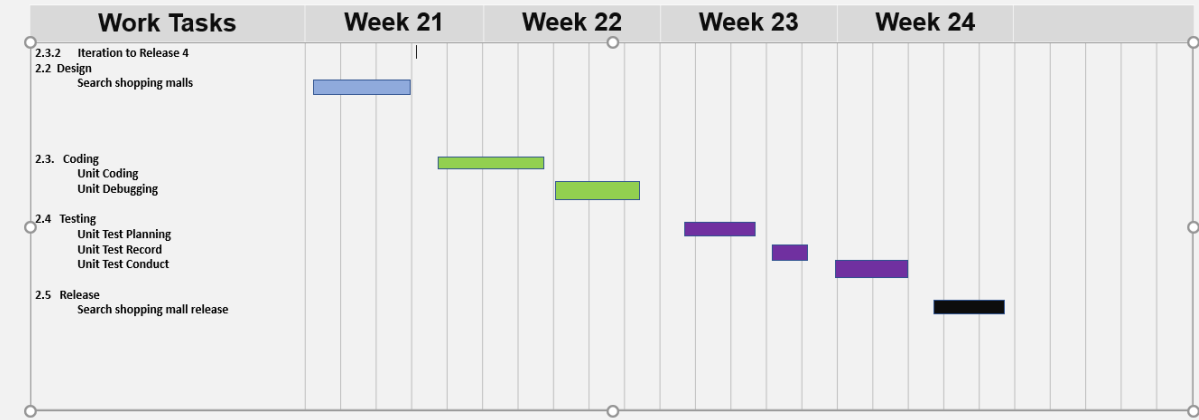
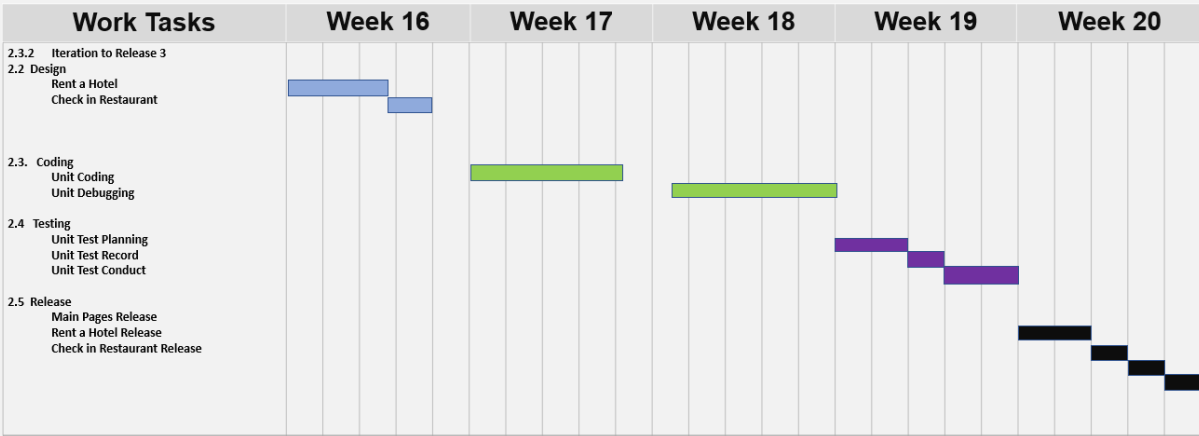
$$= 2.2098$$

Timeline chart-1



Timeline chart-2





Computing Earned Value

Task	Planned effort	Actual effort
1	12	12.5
2	14	11
3	12	16
4	8	9
5	9	8.5
6	17	18
7	9.5	9.5
8	3	3.5
9	11	9
10	5	5.5
11	4	
12	13	
13	15	
14	5	
15	7	

Here, 10 tasks have been completed.

Here,

$$BCWP=100.5$$

$$BCWS=144.5$$

$$ACWP=120.5$$

Here,

$$BAC=15.749*22$$

$$=346.5$$

$$SPI = BCWP/BCWS$$

$$=100.5/144.5$$

$$=0.69$$

$$SV= BCWP-BCWS$$

$$=100.5-144.5$$

$$= -44 \text{ person-day}$$

$$CPI= BCWP/ACWP$$

$$=100.5/102.5$$

$$= 0.98$$

$$CV= BCWP-ACWP$$

$$=100.5- 102.5$$

$$= -2 \text{ person-day}$$

$$\% \text{ Schedule for completing} = BCWS/BAC$$

$$= 144.5/346.5$$

$$=41.7\%$$

[% of work schedule to be done at this time]

% complete = BCWP/BAC

=100.5/346.5

=29%

[% of work completes at this time]

Risk Management

Risk	category	probability	Impact	RMMM
Size estimate may be significantly low	PS	50%	2	
Continuous changing requirements	TE	40%	2	
Product is complex to implement	TE	30	2	
Larger number of user than planned	PS	20%	3	
No communication in the team	TE	20%	2	
Technology will not meet expectations.	TE	30%	3	
Failure to resolve the responsibilities	ST	30	2	
Stuff turnover will be high	ST	25%	3	
Lack of training of tools.	PS	60%	3	
Less use of future technologies	ST	40%	2	

Impact Values

1. Catastrophic
2. Critical
3. Marginal
4. Negligible

The work product is called a Risk Mitigation , Monitoring , And Management plan (RMMM)