

Futuristic data driven digital marketing solution for health care domain.

Business Requirements Document m

V1.0.0



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**THANKS AND REGARDS,
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REVIEW OF LITERATURE

Previously in traditional marketing it cannot be tracked that how much successful a campaign is or how many people is getting influenced by it in real time that is why digital marketing came into business. Nowadays each and every company is very much possessive about data this is where digital marketing comes into action, digital marketing captures each and every user data and helps to make the campaign more effective and successful. For an instance in digital marketing if we market a product through mails, whether customer opened it or not or which section of the mail is viewed by the customer can be tracked. This type of information is very much helpful to trigger campaign at right time and right place to right person. With the help of different CRM, tools we can track each and every customer movement affecting our campaign. Companies invest a lot in marketing so it is an obvious selection that companies will go with digital marketing where data can be analyzed.

This system, aim to launch a campaign for a health care company. This system will actually record and analyze user data so to make the campaign more effective. This system actually, enhance the relationship between customer and marketing department so to give customers a better experience.

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1. INTRODUCTION

1.1. ABSTRACT

A health care company wants to promote their new health care packages among its customers. Customers will receive a mail about the health care company which will contain a hyperlink on clicking which the user will be redirected to the company homepage where the user will create his or her profile by filling up all the details (name, mobile number, E-Mail, salary, premium) and after which they will receive a mail containing packages based on the relevance score which will be auto generated through analysis of the above mentioned parameters in their respective mail ids. Customer can register to avail the product of his choice online and can renew the product when it is about to expire. If the customers profile is Incomplete customer will receive mail to complete its profile. Customer will also get a mail about a Wellness Assessment Program arranged by the company where company will assess customer health and will refer doctors or hospital with discount. After stipulated time customer will receive coupon code in their mail ids for getting discount on health checkups suggested through the Wellness Assessment Program in hospital nearest to the customer. An application will be made which will analyze how many customers has bought the packages or how many customers is interested in the packages or how many customers renewed the product. A sentimental analysis will be done.

A website will be made where customer can enter his/her personal details or can create an account. Tools will be used to trigger mail and analyze user data and a web application will be made to analyze user movement.

1.2. AIM OF THE PROJECT

The Aim of this Project is Digitally marketing health care plans selling them online to the customers and analyzing how successful our campaign is. Renewal of policies and offering discount for health checkups This system is used for managing activities like filling up the form by leads, prediction of Healthcare plans.

1.3. PROJECT OVERVIEW

In this project we will be developing a website where customer will visit from the links that the customer will get in their mail ids and will create a profile containing all his basic details based on that all health packs will be offered to the customer. Customer will get details of health packs in their respective mail ids. If Customer is interested to buy he will be redirected to the payment portal. After Successfully paying customer will get a confirmation mail in their mail ids. Customer will be notified When the customer registered plan is about to expire the customer will get a mail about renewal of plan. We will be tracking customer movement and will be analyzing how many customers have actually responded to our plans and have actually bought the plans or renewed the plans.

1.4. SCOPE

The scope of the system is explained through its modules as follows

- Customer Registration – The Customer will fill up the form which is being sent to them as a Campaign. They will be redirected to the Homepage and their records will be sent to **Adobe Campaign Management, MS Dynamics 365, Azure Machine Learning**.
- Healthcare Plan Generation – **Azure Machine Learning** will generate relevant healthcare plan based on the data Recorded in the Database of the Customers.
- Healthcare Plan Registration and update profile – Customer will register for respective healthcare plan and will do the payment by clicking on the link, which is being mailed to them by **Adobe Campaign Management**. A login id and password will be provided to the customers with the help of an E-mail.
- Wellness Assessment & Offers – **Adobe Campaign Management** will send surveys(form) for analyzing medical conditions of customers and thus will organize wellness programs for customers in nearby locations offers & discount will be given.
- Renewal of Policy – Before the plan will end the customers will receive an email regarding renewal of the policy which is being triggered by **Adobe Campaign Management**.
- Analysis of Customer Interest – Analysis will be done based on the journey of the customer in this process and a report will be generated to be more specific about customer interest in the Healthcare Plans.

1.5. Intended Audience

- Developers, Testers, Mentor and Manager.
- All associates related to the project.
- End User Client.

1.6. Constraints, Assumptions and Dependencies

Assumptions:

- Users visiting website are potential Leads (who needs proper healthcare assistance).
- The user details given are valid.
- We are considering least number of E-mail bouncing.
- The user has a minimum required balance for transaction in his account.

System Constraints:

- If there is any invalid details recorded, the user cannot proceed further with the Registration.
- The user should have the required balance to complete the transaction.

Design Constraints:

- Only architect can modify the System Architecture of Marketing model.
- Login Credentials will be provided only after successful Transaction.

2. TOOLS USED

2.1 Adobe campaign management tool:

ACM delivers best in class campaign which is instinctive and has touch-friendly marketing automation across all channels that are digital and traditional. Adobe Campaign addresses a key challenge for marketers which are how to build and lengthen relationships with their customer base to drive top-line revenue growth and return on investment. Adobe Campaign is considered as the only marketing technology that really allows organizations to start and endure one-to-one customer negotiations. With first class email and inbound-outbound channel fusion competences, Adobe Campaign can systematize the implementation of social, email, mobile and offline campaigns. Driven by an intellectual decision based engine, the idealistic technology allows marketers to accomplish quantifiable results in record time. Adobe Campaign's integrated customer profile permits marketers to merge data from both online and offline sources, in order to form a comprehensive view of the customer. Marketing automation solutions also allow marketers to move away from labor-intensive and arduous manual processes and increase marketing effectiveness, while delivering better customer experiences.

2.1.1 Benefits of Adobe Campaign

Increase in business and revenue performance: It builds meaningful experiences and improves response rates with the use of fine-grained personalization to deliver the right message to the right person via right channel. Make the most of each customer touch point with timely and effective remarketing, upsell, and cross-sell communications at every stage of the customer lifecycle. Drive top-line revenues by computerizing and enhancing marketing campaigns for excellent results.

Optimization of resources and efforts: Facilitating productivity advantages with end-to-end cross-channel management from design, execution, inspection and optimization. It deliver's campaigns at scale which contains cost by rationalization and automation of marketing processes, without losing relevant content. Leverage a single marketing view of the customer to efficiently personalize communications and get the highest earnings from your marketing efforts.

Integration of customer's profile: Track every action in a combined view, and sustain an organized memory of the customer. Adobe Campaign integrated customer profiles contains purchase pattern, data to target customers preferences across programs—upsell, cross-sell, retention, and loyalty. You need to tap into the Adobe Marketing Cloud rich view of digital behaviors to yield an unmatched chief marketing profile that drives extremely personalized marketing.

Flexible Deployment: Adobe Campaign is grounded on modern architecture and makes use of web services for up-front data and procedure integration with active front and backend

systems. Adobe Campaign is proficient of running in a distributed architecture approach to allow redundant processes and load balancing, dependent on technical and business controls. Adobe Campaign also offers cloud and on-premise deployment, and a cross model that enables you to maintain confidential data in-house and outsource Internet-facing processes.

2.1.2 Use Cases and Deployment Scope

Adobe Campaign is used as the core email marketing tool (outbound) as well as customer Interactions management tool (Inbound) in the Adobe marketing platform stack. It is used by creative team for email template design, email developers, field marketing, hub managers, partner and channels marketing team to send out adorable marketing campaigns via different channels like email, SMS, direct postal mail, Push and display ADs on our websites. When done right, using predictive and next best message concept, these emails delight customers as they are very relevant to where they are in their discovery / buying journey.

Adobe Campaign should be operationalized, architected and run by a central operations team. Proper user training and on boarding support should be provided. New add on custom developments are done to enable CAN SPAM law compliance, explicit and double opt in, context based marketing, Omni-channel reach out, web services integration and Adobe Marketing Cloud (AMC) integration via core services for predictive analytics and next best content. AC delivers the right message to the right prospect or customer at the right time on the right channel.

So you will need to run fewer campaigns but they will be more effective ones with higher ROI and conversion rates.

2.1.3 PROS OF ACM:

- Dynamic Web Applications (Landing Pages), Personalization Blocks, one click publish, secure endpoints.
- Email Tagging, Delivery Tracking, Retry and Logging, Hot Clicks, Delivery Rules, Typology Rules.
- Reporting on Delivery Statistics, Open rate, Click Rate, Custom Reports.
- Integration with SFDC, MSD CRM on Cloud, Adobe Analytics, Genesis Connector.
- Customer Interaction Management and Offers presentation.
- Customer Surveys and Subscription.

LIKELIHOOD

Adobe Campaign (AC) fits very well in the ecosystem of Adobe Marketing Cloud for large enterprises. It can integrate and communicate with other components of AMC to design a next generation predictive marketing digital campaign. For SMBs, it can do all (manage recipients, host web sites, track leads and clicks and capture them via REST, and give reporting). You have to look at your desired outcome and budget to figure out if AC will be used standalone or in the ecosystem of AMC.

2.2 MS DYNAMICS 365:

Microsoft Dynamics 365 is a cloud-based business applications platform that combines components of customer relationship management (CRM) and enterprise resource planning (ERP), along with productivity applications and artificial intelligence tools. Dynamics 365 launched in 2016, when Microsoft combined Dynamics AX -- its ERP application -- with its Dynamics CRM application. Microsoft was one of the first major vendors to combine the capabilities of ERP and CRM natively.

2.2.1 MS Dynamics 365 combines the strengths of a CRM and an ERP in the cloud. A CRM is used by most companies to enhance customer interactions and improve sales. An ERP, on the other hand, is used by companies to store financial data and manage business processes. Dynamics 365 unifies these two exceptional pieces of technology.

MS Dynamics 365 is available in two editions: the Business Edition for small and medium businesses (SMBs) and the Enterprise Edition for large businesses. The Business Edition includes the Finance and Operations application together with the PowerApps. While the Enterprise Edition has the following available applications:

- Finance and Operations
- Talent
- Retail
- Sales
- Customer Service
- Field Service
- Project Service Automation
- Marketing
- Power Apps

Dynamics 365 is a product line of enterprise resource planning (ERP) and customer relationship management (CRM) applications announced by Microsoft in July 2016 and on general release November 1, 2016, as a part of the Microsoft Dynamics product line. Dynamics 365 is sold in

two editions, the Business Edition for small and medium-sized enterprises (SMEs or SMBs), and the Enterprise Edition for medium to large organizations. The Business Edition includes the Financials application, based on the project code-named 'Madeira'. The Enterprise Edition comprises Dynamics CRM applications (field service, sales, project service automation, and customer service) plus Microsoft Power Apps, together with Microsoft's premier ERP product, known as Dynamics 365 for Operations.

The Dynamics 365 suite is available in two editions, Business or Enterprise, each with different levels of features and applications. Companies can choose from the following Microsoft Dynamics 365 applications and features:

Customer Insights -- Combines customer data from Dynamics 365, Office 365 and third-party data sources, and helps users find actionable insights from that data. Includes Power BI for analytics and visualization, and artificial intelligence tools to identify customer behaviors and provide predictive scoring.

Customer Service – Omni-channel customer engagement tools, customer self-service and communities, and tools for support agents.

Field Service -- Scheduling resources, contract management, inventory management, insight into internet of things-connected products and customer communications tools.

Finance and Operations -- Financial management with reporting and analytics; manufacturing tools for project management, production planning, scheduling, and cost management; and warehouse and inventory control tools for supply chain management.

Marketing -- Connects Dynamics CRM to Adobe Marketing Cloud to provide campaign management and targeted, personalized marketing tools.

Project Service Automation -- Project planning, resource scheduling, time and expense management, and service analytics.

Retail -- Unified commerce tools, store and employee management, merchandise management and operational insights.

Sales -- Provides intelligence on prospective customers, personalization and customer engagement, sales productivity and performance metrics.

Talent -- Human resources cloud services is connected to [LinkedIn](#) to manage all areas of HR, from attracting, hiring and onboarding new employees to managing HR programs.

Benefits of Dynamics 365

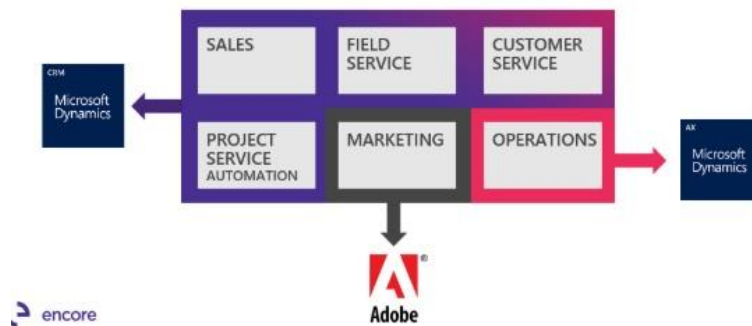
By combining Dynamics 365 CRM and ERP with Microsoft's productivity applications, users get a connected view of data intelligence on customer records, transactions, behaviors and preferences, along with information about orders, inventory and shipping, and in addition to predictive insight tools for decision-makers.

The biggest benefit of Dynamics 365 is tight integration with other Microsoft business applications. For companies that rely heavily on [Office 365](#) and Outlook, or that run operations on [Azure](#), Dynamics 365 provides more beneficial integration with sister products than most CRM systems, which rely on third-party plug-ins. Microsoft is also growing its stable of third-party applications to pair with Dynamics 365 through the App Source store.

Additional Dynamics 365 benefits include a common [UI](#) throughout Microsoft's suite of business applications, enabling easier training and improved efficiency.

One of the clear advantages of Dynamics 365 is its ability to integrate seamlessly with other Microsoft products like Office and Outlook. It also has a growing partner ecosystem—the [App Source](#)—which can help you find [third-party integration tools](#) and marketing apps to boost the effectiveness of Dynamics 365. Companies that choose Dynamics 365 can be assured that the tool can adapt and adjust to their ever-changing businesses needs and goals.

Dynamics 365 Enterprise Edition



2.3 MS AZURE ML:

Azure Machine Learning is a part of Cortana Intelligence Suite that is powered with highly rich AI algorithms. Microsoft has been so busy taking the AI stuff to next level by integrating Cortana with search and now in Edge browser.

The Machine Learning Studio is a feature by Microsoft to play around with ML and to make powerful predictive analytics.

Microsoft Azure Machine Learning Studio is a collaborative, drag-and-drop tool you can use to build, test, and deploy predictive analytics solutions on your data. Machine Learning Studio

publishes models as web services that can easily be consumed by custom apps or BI tools such as Excel+.

Machine Learning Studio is where data science, predictive analytics, cloud resources, and your data meet.

To develop a predictive analysis model, you typically use data from one or more sources, transform and analyze that data through various data manipulation and statistical functions, and generate a set of results. Developing a model like this is an iterative process. As you modify the various functions and their parameters, your results converge until you are satisfied that you have a trained, effective model.

Azure Machine Learning Studio gives you an interactive, visual workspace to easily build, test, and iterate on a predictive analysis model. You drag-and-drop datasets and analysis modules onto an interactive canvas, connecting them together to form an experiment, which you run in Machine Learning Studio. To iterate on your model design, you edit the experiment, save a copy if desired, and run it again. When you're ready, you can convert your training experiment to a predictive experiment, and then publish it as a web service so that your model can be accessed by others. There is no programming required, just visually connecting datasets and modules to construct your predictive analysis model.

2.3.1. 5 Reasons why Azure ML for Machine Learning solutions:

1. Use Machine Learning as a Service:

Microsoft Azure offers Azure Machine Learning as a pay-as-you-go service. Using Azure ML, the businesses do not require setting up complex or purchasing any big hardware or software. They just need to purchase the services and can start developing their Machine Learning applications immediately.

2. Easy & Flexible building interface:

Business can execute their Machine Learning development through the Microsoft Azure Machine Learning Studio. It offers drag and drop components that minimize the code development and straightforward configuration of properties. Moreover, it helps businesses to build, test and generate advanced analytics based on the data.

3. Wide range of supported algorithms:

Azure ML offers readily available well-known algorithms that can be configured simply by drag and drop. It does not require the knowledge of data science or expertise in algorithms; you just need to know when to use them. Specific algorithms like logistic regression and decision tree can also help in devising real-time predictions or forecasts. Moreover, there is no limit in

importing training data and you can fine-tune your data easily. This feature of Azure ML significantly saves the cost and help to generate revenue.

4.Easy implementation of web services:

All you need is to drag and drop your data sets, algorithms, and link them together to implement web services needed for ML development. Once you have practiced with the environment, you just need to test, which would be ready for the further use, then you need to click one button to create and publish the web service. Now, you can use the web service from any device by passing valid credentials.

5.Great documentation:

Microsoft Azure offers full stacks of documentation like quick starts, tutorials, references, and lots of examples that help businesses to easily build, deploy, manage and access the ML solutions effectively.

After the success of its Hadoop-based Azure HDInsight and PowerBI for Office 365, Microsoft took yet another step towards market leadership in Big Data through the public preview release of Azure Machine Learning (also known as "Azure ML"). Taking the predictive analytics to public cloud seems like the next logical step towards large-scale consumerization of Machine Learning. Azure ML does just that, while making it significantly easier for the developers. The service runs on Azure public cloud, which means that users need not buy any hardware or software; and also, need not worry about deployment and maintenance.

Through an integrated development environment called ML Studio, people without data science background can also build data models through drag-and-drop gestures and simple data flow diagrams. This not only minimizes coding, but also saves a lot of time through ML Studio's library of sample experiments. On the other hand, seasoned data scientists will be glad to notice how strongly Azure ML supports R. You can just drop existing R code directly into Azure ML, or develop your own code using more than 350 R packages supported by ML Studio.



Azure ML is built on top of the machine learning capabilities of several Microsoft products and services. It shares many of the real-time predictive analytics of the new personal assistant in Windows Phone called Cortana. Azure ML also uses proven solutions from Xbox and Bing. Outshining Nate Silver's lauded FiveThirtyEight blog, Bing Predicts recently astonished many by [correctly forecasting the results of more than 95% of the US mid-term elections](#). Thus, it might be worth checking out Azure ML to see what its powerful cloud-based predictive analytics can do for you.

During the Strata+Hadoop World Conference in New York a month ago, Azure ML was being compared to IBM's Watson. In his keynote, [Joseph Sirosh](#), Microsoft CVP of Machine Learning, announced [new machine learning capabilities for Azure Marketplace](#), which has evolved significantly over the last few years (since its launch in October 2010). Azure Marketplace hosts various exciting APIs that use ML, including the Bing Speech Recognition Control, Microsoft Translator, Bing Synonyms API and Bing Search API. As of today, Azure Marketplace has 25+ machine learning APIs.

The Marketplace is a convenient platform for data scientists to build custom web services, publish APIs and charge for its usage. Azure ML users can search for these APIs and subscribe to them. Thus, along with other Analytics Marketplaces, Azure Marketplace is another good

platform for data scientists to monetize their expertise and creativity, very similar to how developers do on iOS or Android app stores.

In the efforts to boost the adoption of the still new Azure ML service, Microsoft has taken several steps to make it easier for people to try it. Recently, Microsoft executives at the PASS Summit in Seattle, announced a free tier of access to Azure ML (i.e. now you can try Azure ML without providing any credit card information). This has encouraged DBAs, developers, BI professionals and amateur data scientists to try Azure ML for building models to incorporate into applications. Besides, Microsoft also launched the [Microsoft Azure for Research Award Program](#) offering research grants to both seasoned researchers and students to try Azure ML.

3.PROCESS ARCHITECTURE

3.1. Physical Architecture:

A physical architecture is an arrangement of physical elements, (system elements and physical interfaces) that provides the designed solution for a product, service, or enterprise. It is intended to satisfy logical architecture elements and system requirements. Auto Identification Process follows a three layered architecture namely presentation layer, business logic layer and data access layer.

- **Presentation Tier** is the tier in which the users interact with an application. Presentation Tier Contents Shared UI code, Code Behind and Designers used to represent information to user.
- **Business Tier** is mainly working as the bridge between Data Tier and Presentation Tier. All the Data passes through the Business Tier before passing to the presentation Tier. Business Tier is the sum of Business Logic Layer, Data Access Layer and Value Object and other components used to add business logic.
- **Data Tier** is basically the server which stores all the application's data. Data tier contents Database Tables, XML Files and other means of storing Application Data.

Continued....

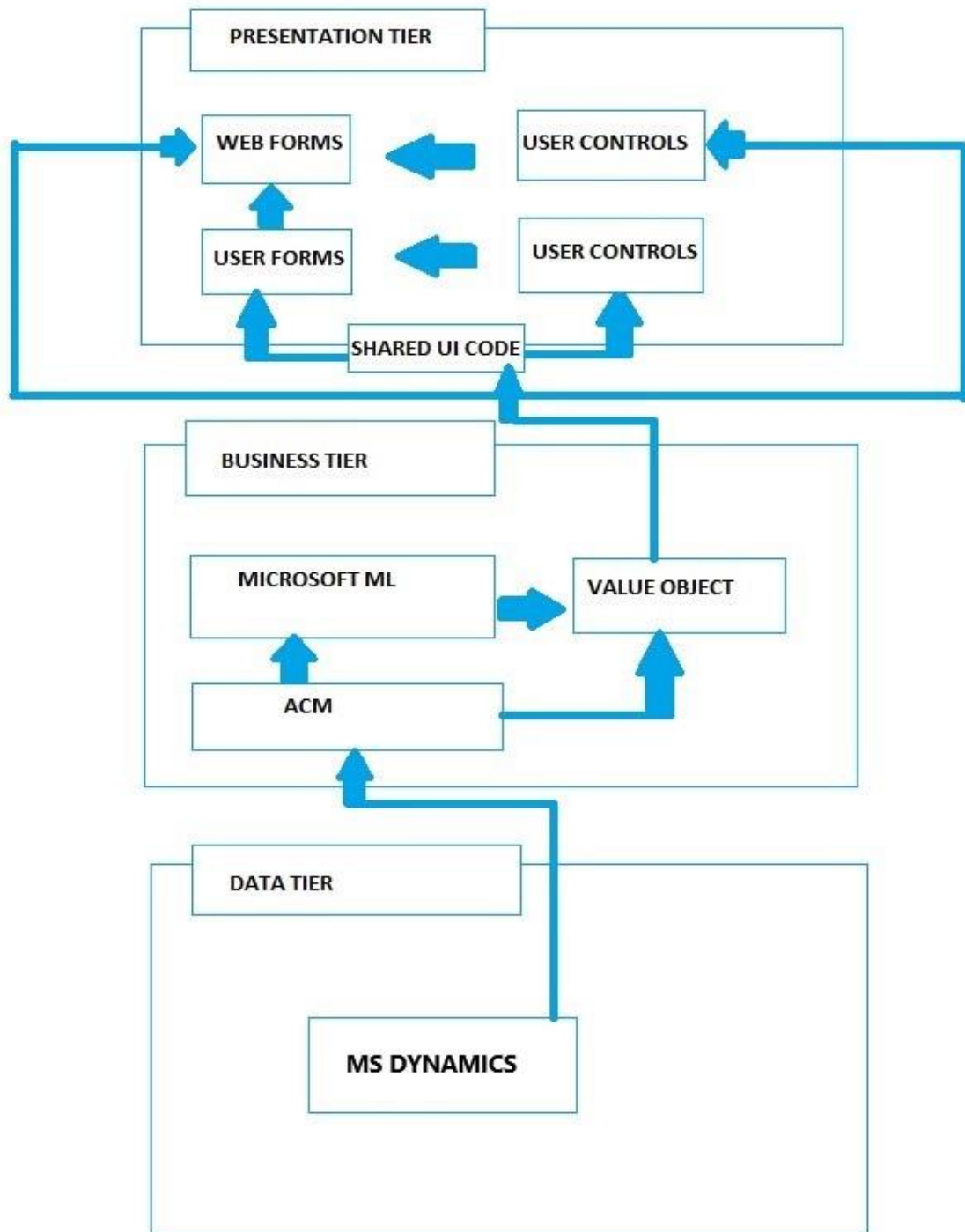


Figure:3.1 Physical Architecture

3.2. Logical Architecture:

The Logical Architecture defines the Processes (the activities and functions) that are required to provide the required User Services. Many different Processes must work together and share information to provide a User Service. The Processes can be implemented via software, hardware, or firmware. The Logical Architecture is independent of technologies and implementations

3-Layered Architecture Logical Diagram:

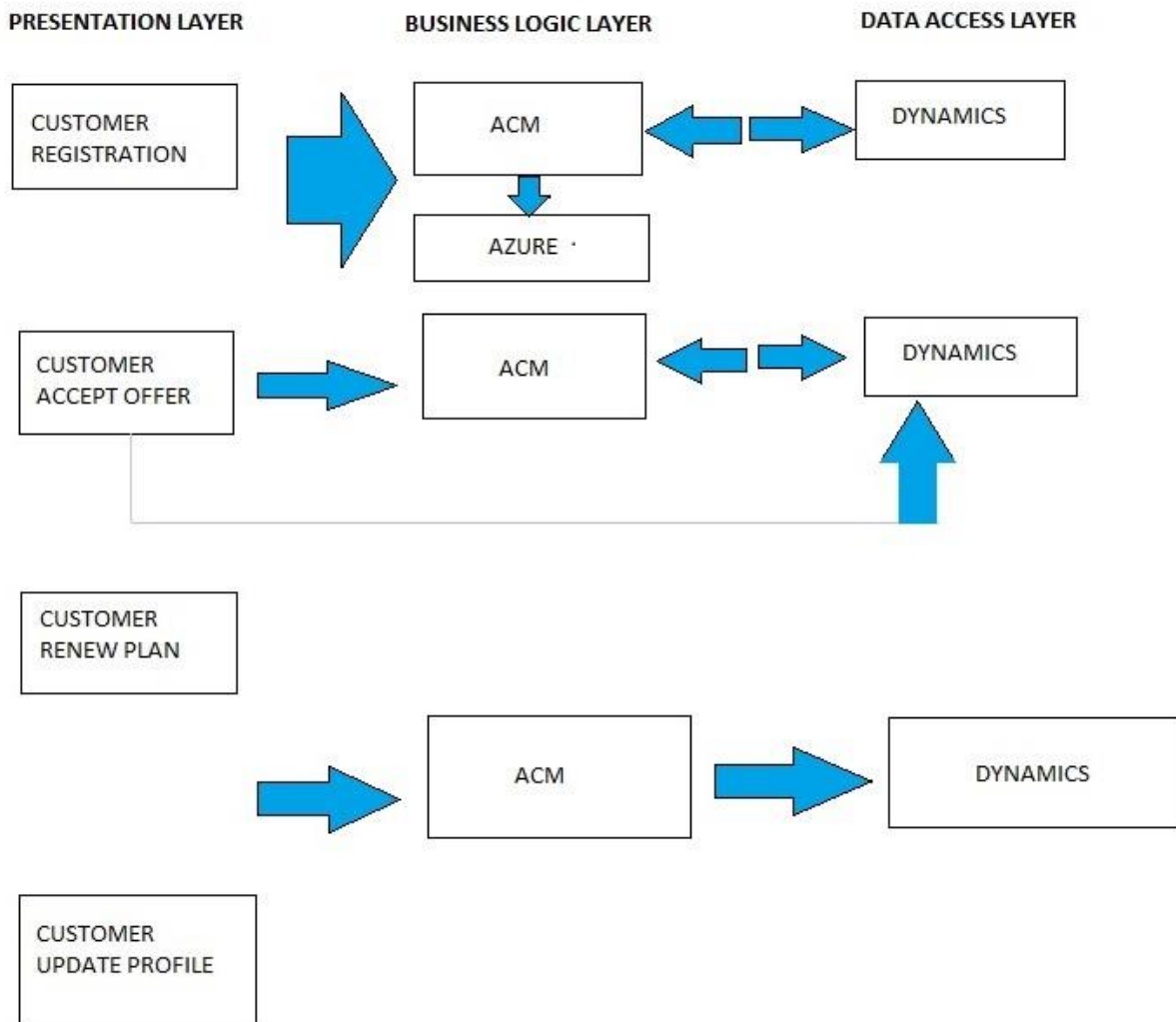
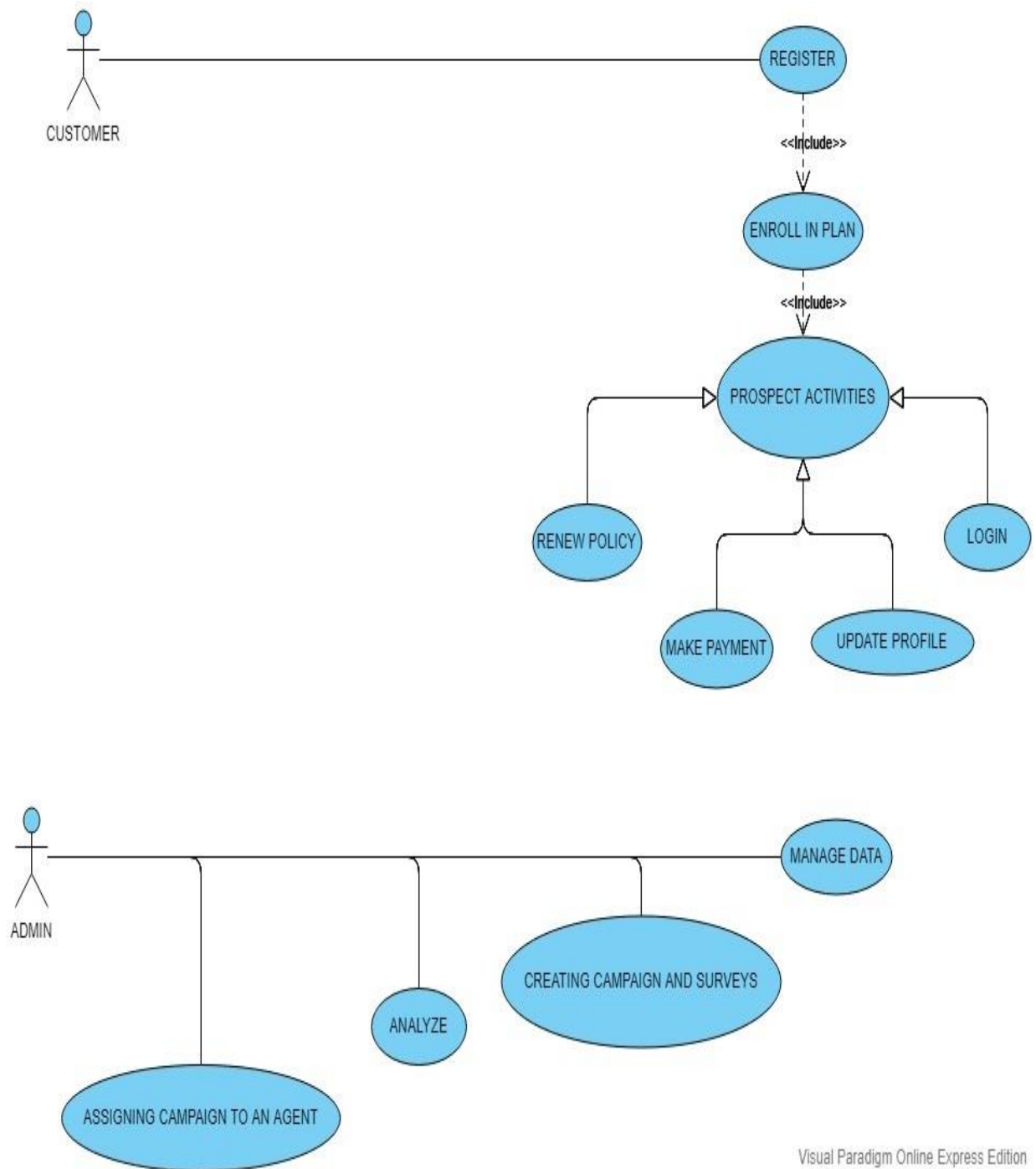


Figure:3.2 Logical Architecture

4. Use Case Diagram



Visual Paradigm Online Express Edition

Figure:4.1 Use Case Diagram

5. Sequence Diagram

5.1. User Enroll on a plan

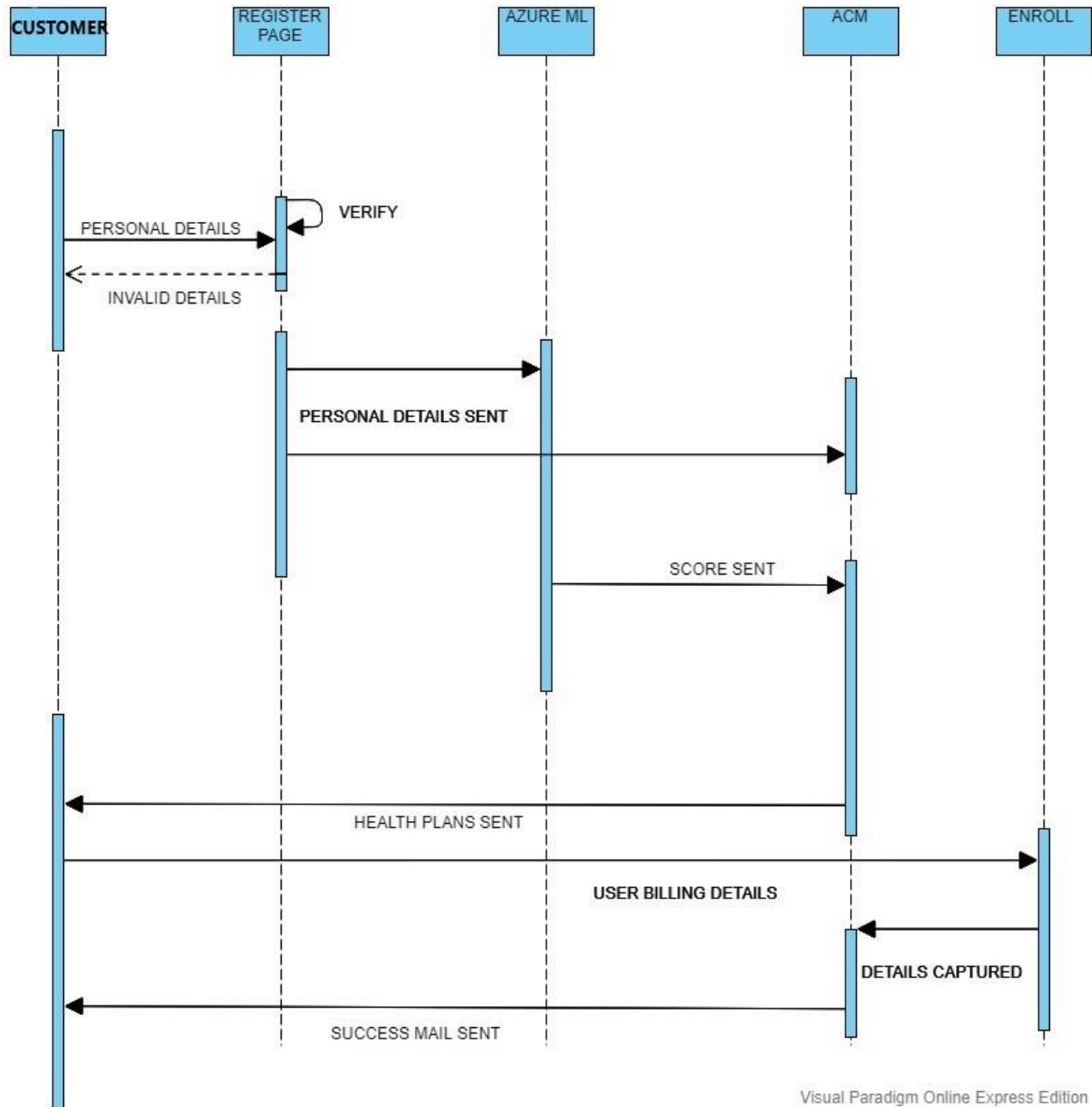


Figure:5.1 Sequence Diagram-User Enroll on a plan

5.2. User Renew a plan

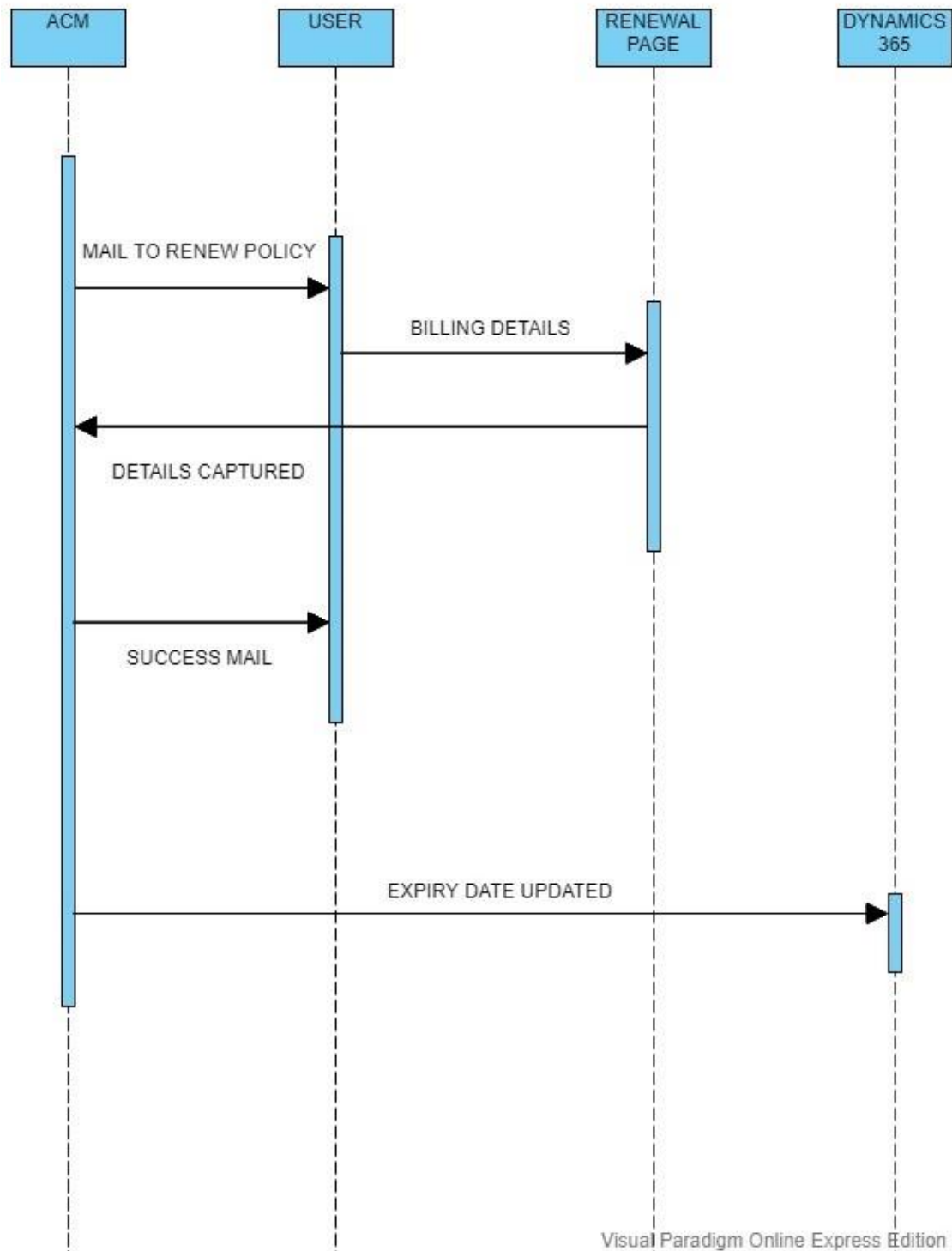


Figure:5.2 Sequence Diagram-User renew a plan

5.3. User update profile

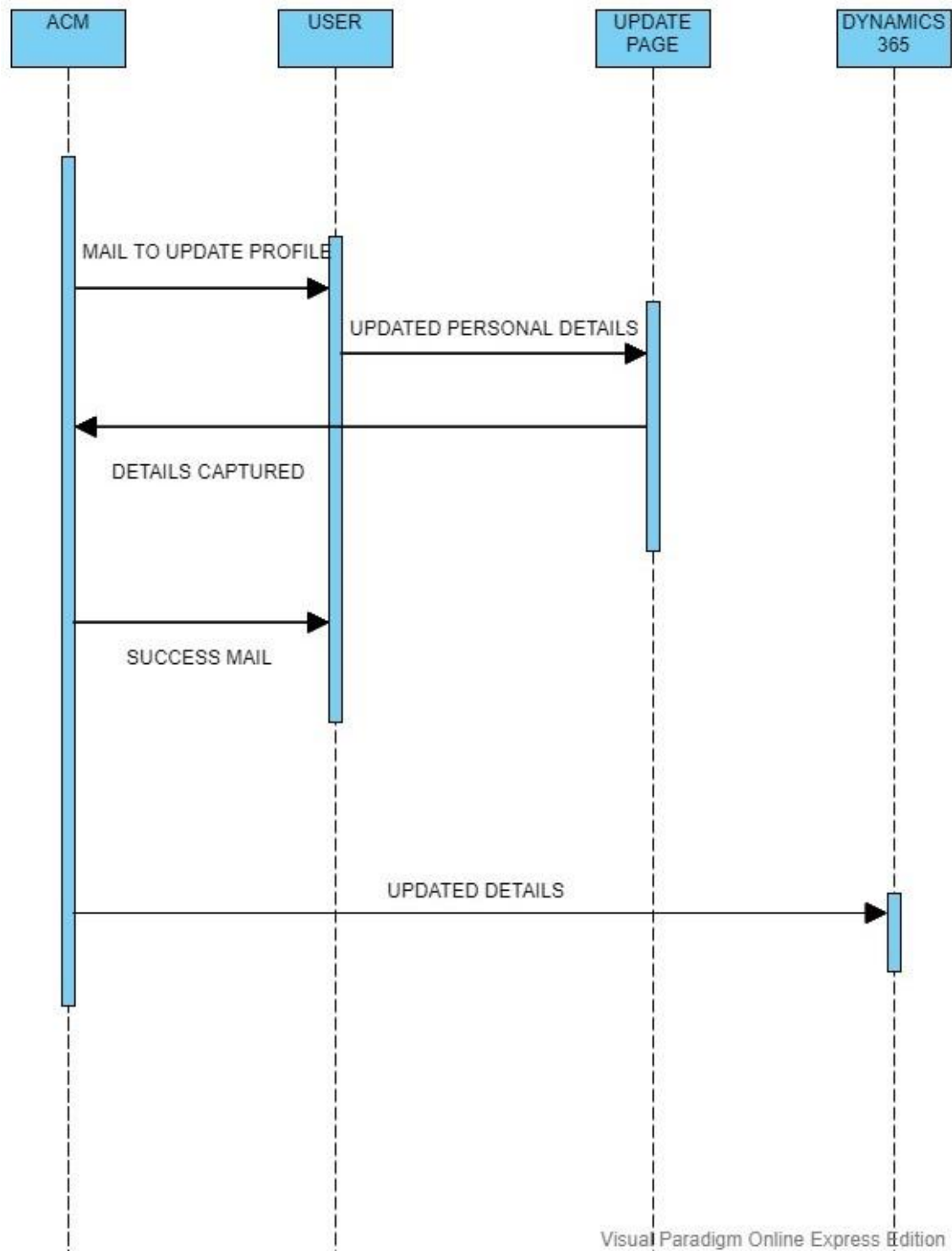


Figure:5.3 Sequence Diagram-User update a profile

5.4. User take part in wellness assessment program

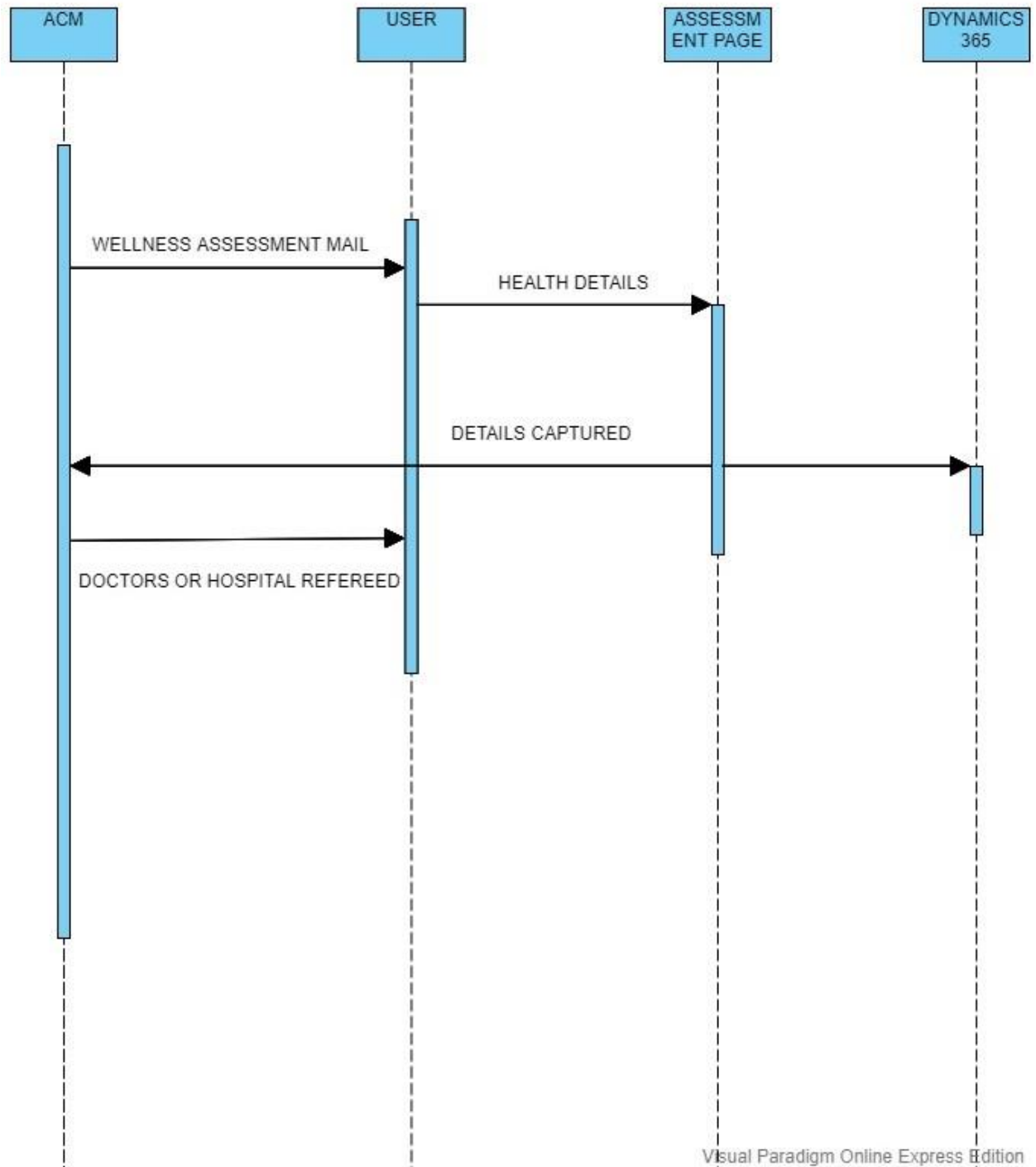


Figure:5.4. Sequence Diagram-User take part in wellness assessment program

6. Activity Diagram

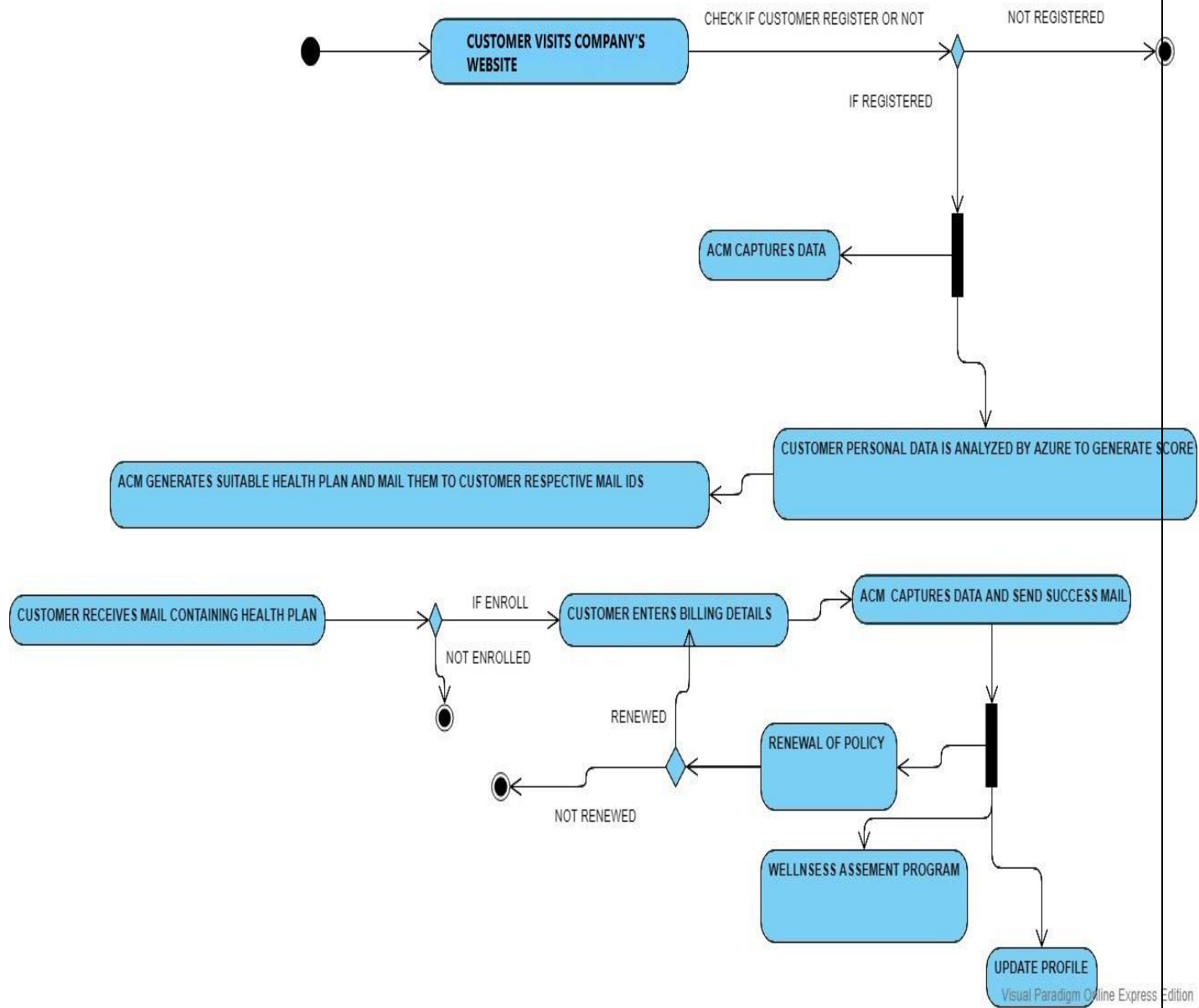


Figure:6.1. Activity Diagram

7. System Requirements

7.1. FUNCTIONAL REQUIREMENTS

7.1.1. HEALTHONE HealthCare – Home Page

When the user visits the website, Home page appear where the user should be able to

- Enroll.
- Fill in the basic information (Name, Age, Contact, Premium etc.).
- Know more about Website.

Under home page, we need below Interface Requirements.

User Interface Screen:

- See if I can Enroll – This button has to be clicked if you want to register for a Healthcare Plan.
- See if I can Change – This button has to be clicked if you want to change your Healthcare Plan.
- See How – This button helps you show how to submit documents.

Pre-Conditions:

The User needs to select one of the option to enter the Enrollment process.

Post Conditions:

The system should show the particular landing page after getting clicked on it.

Failed End Condition:

The system should open a dialog box with a message “You want to exit press ‘YES’ or ‘NO’” when the User will navigate away from the Home page without any of the action specified being performed.

Steps & Actions:

- System should display all the necessary details
- The User must click on any of the buttons or Learn more from the Homepage.
- On Clicking the buttons User should be redirected to the particular Page He wish to visit.

7.1.2 HEALTHONE HealthCare – Policy Registration

When the user clicks on **SEE IF I CAN ENROLL** on the Home Page, Registration page should appear where the user can fill up his necessary details to proceed with the Registration in any of the HealthCare Insurance Plans.

Under Registration page, we need below Interface Requirements.

User Interface Screen:

- Email (Necessary field) – User should enter his/her valid email id in this field.
- State – User should choose his/her state from the dropdown list.
- Country – User should enter his/her country Name.
- Mobile Phone – User should enter his/her active mobile number.
- Current Annual Premium (Necessary field) – User should Enter the premium details in dollars.
- Area of Interest (Necessary field) – User should choose his area of interest from the dropdown list to **Health Care**.
- Submit Button – After filling up the form User must click on submit button so that the details can reach to **ACM, MS Dynamics 365, Azure ML**.

Pre-Conditions:

The User must enter valid details and Necessary fields (marked with red asterisk) must not be left Empty.

Post Conditions:

The system should send the details to the respective tools, on clicking the submit button and a Thankyou message is displayed.

Failed End Condition:

- The system should throw an error message if the Necessary fields are left empty and the submit button is clicked.
- The system should throw an error message if the given Email id is not valid after Validation is done.

Steps & Actions:

- System should display all the necessary details of the Registration page.
- All the required fields should be filled.
- On clicking Submit button, Data is being sent to all tools necessary.
- On clicking Submit button, User is taken to a page thanking him/her for his/her interest & that an email has been sent with offer details.

Business Rules & Validations:

- All details are mandatory.
- E-mail id given will be validated to see if this is valid or not.

7.1.3 HEALTHONE HealthCare Plan – Signup Page

When the User clicks on one of the top 3 healthcare plans which is being generated by **ACM** and sent to them in their respective Email ids they were redirected to this **Signup Page** to proceed with the further update profile and transaction process for the plans.

Under Sign Up page, we need below Interface Requirements.

User Interface Screen:

- First Name (Necessary field) – User must enter his first name.
- Last Name – User will enter his last name if any.
- Email (Necessary field) – User should enter his/her valid email id in this field.
- Bank Name (Necessary field) – User should choose the bank name from the dropdown list where his account is for the payment purpose.
- Clear Button – User can clear all the details filled in order to make any changes if required.
- Submit Button – User can submit all the details by clicking on this button.

Pre-Conditions:

The user needs to fill his details and bank name carefully for payment to process.

Post Conditions:

User receives an email for confirmation of the healthcare policy purchase with order ID.

Failed End Condition:

The system should throw an error message if the Necessary fields are left empty and the submit button is clicked.

Steps & Actions:

- System should display all the necessary details of the Sign up page.
- All the required fields should be filled.
- On clicking Submit button, Data is being sent to all tools necessary.
- Details captured by Adobe Campaign are sent to MS Dynamics for purchase order creation.
- MS Dynamics sends the generated order ID back to ACM for the user/customer and an E-mail to the User with order Confirmation.
- After clicking Submit Button User will be directed to Thanks giving page with all the order details mentioned on it.

Business Rules & Validations:

- All details are mandatory.
- Email id given will be validated with the previously given email id at the time of Registration.

7.1.4 HEALTHONE HealthCare – Update Profile

User receives Welcome email sent by **ACM** with directions to log into the HEALTHONE website online and complete their profile details online. When the User clicks on the Update Profile Button which is there in email User will be redirected to Update Profile page to enter all the details.

Under Update Profile page, we need below Interface Requirements.

User Interface Screen:

- First Name (Necessary field) – User must enter his first name.
- Last Name – User will enter his last name if any.
- Email (Necessary field) – User should enter his/her valid email id in this field.
- Mobile (Necessary field) – User will enter his registered Mobile number.
- Address (Necessary field) – User will enter his home Address.
- State/Province Code – User will enter his state along with Province Code.
- Zip/Post Code – User will enter the zip code or his/her Postal Code.
- Country – User will enter his/her country name.

Pre-Conditions:

The user should fill in all the details required to update his/her profile correctly.

Post Conditions:

The user details on the Update Profile is recorded and sent to the **ACM** for upcoming events references.

Failed End Condition:

- If the user failed to update the following details the system will throw an error message to complete the task.
- After a stipulated time, **ACM** will again send an email reminding to update the profile by the user.

Steps & Actions:

- All the required fields should be filled.
- User inputs additional details & submits.
- On clicking Submit button, Data is being sent **ACM** for future references.
- After a stipulated time, User receives an email with offer with coupon code on discounted health checkup at a clinic near their registered address, the email has a google map embedded for location direction.
- After a stipulated time, User receives an informative email on importance of healthcare plans.

7.1.5 HEALTHONE HealthCare – Wellness Assessment

User receives a personalized email on wellness assessment with details of the assessment program from HEALTHONE by **ACM** containing details of the assessment program along with the discounts and other offers. When the User clicks on the “I’m Interested” Button he/she will be redirected to the Wellness Assessment Page. Which have a set of questions and it will help **ACM** to allocate user to a certain program which will be helpful to the user’s health.

Under Wellness Assessment page, we need below Interface Requirements.

User Interface Screen:

- Member Name – User must enter hi/her name beginning with.
- In general, would you say your health is – User should select one option from the dropdown list.
- In the past year have you had – User should select appropriate option from the dropdown list.
- In the past 7 days, how much pain have you felt – User should select about the degree of pain from the dropdown list.
- In general, how satisfied are you with your life? – User should select appropriate option from the dropdown list.
- How much alcohol do you drink – User should provide details of consumption of alcohol in liters from the dropdown list.
- Condition of mouth and teeth – User should provide his condition related to this from dropdown list.
- Hygiene – User should provide answers to hygienic conditions related to him like his habits and home hygiene from checkbox “yes” or “no” type questions.
- Submit Button – User will press this button and all the details will be sent to **ACM, MS Dynamics**.

Pre-Condition:

- The user should fill all the details carefully and correctly as their health issue is related here.
- The user should not leave any field empty for a better and relevant score generation to allocate to respective programs under specialized doctors.

Post Condition:

User will receive a thankyou email for taking the survey along with the discount or offers like vouchers and coupon code etc.

Failed End Condition:

If the user will not select correct options and fill all the details carefully the score generated will not be relevant and the user might get allocated to slightly different programs other than of his requirement.

Steps & Actions:

- User inputs required details and submits.
- Assessment details are captured by MS Dynamics platform
- MS Dynamics generates a score (Excellent/Good/Average) for the user
- MS Dynamics sends this score to Adobe Campaign platform
- Adobe Campaign platform generates the top policy offers based on the score and other details for the user
- Adobe Campaign sends a personalized email to user with offer details
- The User receives a personalized email with customized offers based on his/her assessment score.

7.1.6 HEALTHONE HealthCare – Renewal of Policy

After a stipulated time, User receives a personalized email alert that his/her purchased Healthcare policy is about to expire. User clicks on the “Renewal” link in the email User is taken to the HELATHONE portal Renewal page for the renewing the policy or change it.

Under Renewal of Policy page, we need below Interface Requirements.

User Interface Screen:

- First Name (Necessary field) – User must enter his first name.
- Last Name – User will enter his last name if any.
- Email (Necessary field) – User should enter his/her valid email id in this field.
- Bank Name (Necessary field) – User should choose the bank name from the dropdown list where his account is for the payment purpose.
- Spouse – User should select gender and enter date of birth and select whether they use tobacco or not
- Childs – User should select gender and enter date of birth and select whether they use tobacco or not.
- Clear Button – User can clear all the details filled in order to make any changes if required.
- Renew Button – User can submit all the details and by clicking on this Renew button his/her policy will be renewed.

Pre-Condition:

- The user needs to fill his details and bank name carefully for payment to process.
- The user needs to be once register for any of the policy then only he can renew it.

Post Condition:

User receives an email by MS Dynamics of renewal confirmation with all policy details.

Failed End Condition:

- If the user is failed to renew his/her policy, he will receive an email regarding expiry of his policy.
- If the details filled by the User doesn't match with the previous details during the first registration the system will throw an error message.

Steps & Actions:

- System should display all the necessary details of the Renewal of Policy page.
- All the required fields should be filled.
- On clicking Renew button, Data is being sent to all tools necessary.
- The details for renewal are captured by Adobe Campaign and are sent to MS Dynamics for policy renewal order.
- MS Dynamics updates the user records.
- MS Dynamics sends a renewal confirmation email to User with policy details.
- User receives an email with policy renewal details.

8. BUSINESS PROCESS ANALYSIS

8.1 'As-is' Process Flow

It can be summarized as the following:

ADMIN

- Admins can administer the System and manage all the Functionalities of HEALTHONE Healthcare Solutions.
- Admin can view the records of customer registering in Healthcare policy & can manage payments.
- Admin can manage all the details of Leads, Surveys and Campaigns.
- Admin can add, edit, delete surveys and campaigns based on demand for marketing.
- Admin will allocate campaigns to Contact Centre Agent for managing a large number of users.

ADOBE CAMPAIGN MANAGEMENT

- ACM will keep the records of all the leads and can manage it.
- ACM will generate surveys to get the details of customer for healthcare plan generation.
- ACM generates healthcare plans based on the details captured and sends a personalized email with the relevant offers.
- ACM will capture the details of user registration in a policy and sends it to the MS Dynamics for order ID creation.
- ACM will generate campaigns for wellness assessment programs and a personalized email will be sent to the user.
- The details for renewal are captured by Adobe Campaign and are sent to MS Dynamics for policy renewal order.

MS DYNAMICS 365

- MS dynamics will keep records of all leads (Potential Customer) and prospects (Customers).
- MS Dynamics sends the generated order ID back to ACM for the user/customer.
- MS Dynamics also sends an email to the user with order confirmation.
- MS Dynamics updates the user records.
- MS Dynamics sends a renewal confirmation email to User with policy details.

USER

- User visits the Healthcare insurance home page and shows interest in new enrolment and clicks on “SEE IF I CAN ENROLL”.
- User fills in details of user age, email, mobile, Country, State, salary & Current Premium & submits
- User will select the healthcare plan sent to him and make the payment and this a login credential will be sent to him.
- User can Manage its profile update, edit and can view his/her details.
- User can renew its healthcare plan.

Member Enrollment(AS IS)

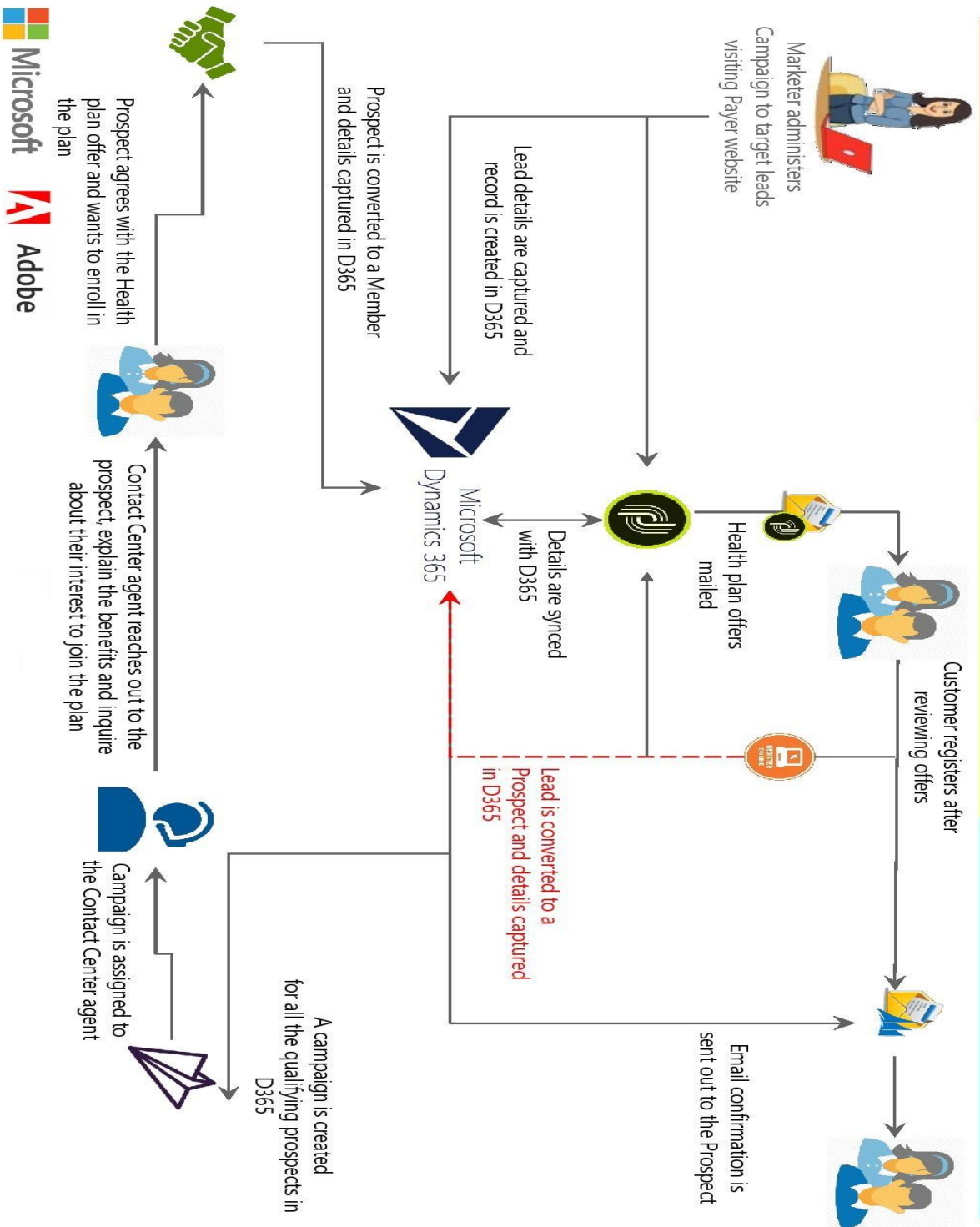


Figure: 8.1.1. Process Flow-Diagram(As-is)

8.3 Proposed solution

- Azure ML will generate scores which will help to determine suitable Healthcare plans based on parameter values recorded while registration.
- Surveys and Campaigns generated through ACM will help record medical conditions of customers thus Wellness Assessment Programs will be organized.
- E-mails will be triggered for renewal of plans by ACM.
- Customer movement or interest will be tracked by linking database to each web page which will record customer id no. visiting that web page.

8.4 'To-Be' Process Flow

It can be summarized as the following:

ADMIN

- Admins can administer the System and manage all the Functionalities of HEALTHONE Healthcare Solutions.
- Admin can view the records of customer registering in Healthcare policy & can manage payments.
- Admin can manage all the details of Leads, Surveys and Campaigns.
- Admin can add, edit, delete surveys and campaigns based on demand for marketing.
- Admin will allocate campaigns to Contact Centre Agent for managing a large number of users.
- Admin will analyze the course of action in the HEALTHONE page to determine likelihood of user to become a customer.

AZURE MACHINE LEARNING

- Azure Machine Learning will analyze the leads data and generate relevant score (Low, Medium, High) based on his interests.
- Azure Machine Learning will send this score to ACM for healthcare plans generation.

ADOBE CAMPAIGN MANAGEMENT

- ACM will keep the records of all the leads and can manage it.
- ACM will generate surveys to get the details of customer for healthcare plan generation.
- ACM generates Top 3 healthcare plans based on the details captured and Scores provided by Azure Machine Learning & sends a personalized email with the relevant offers.
- ACM will capture the details of user registration in a policy and sends it to the MS Dynamics for order ID creation.
- ACM will generate campaigns for wellness assessment programs and a personalized email will be sent to the user.
- The details for renewal are captured by Adobe Campaign and are sent to MS Dynamics for policy renewal order.

MS DYNAMICS 365

- MS dynamics will keep records of all leads (Potential Customer) and prospects (Customers).
- MS Dynamics sends the generated order ID back to ACM for the user/customer.
- MS Dynamics also sends an email to the user with order confirmation.
- MS Dynamics updates the user records.
- MS Dynamics sends a renewal confirmation email to User with policy details.

USER

- User visits the Healthcare insurance home page and shows interest in new enrolment and clicks on “SEE IF I CAN ENROLL”.
- User fills in details of user age, email, mobile, Country, State, salary & Current Premium & submits
- User will select the healthcare plan sent to him and make the payment and this a login credential will be sent to him.
- User can Manage its profile update, edit and can view his/her details.
- User can renew its healthcare plan.

Member Enrollment(TO BE).

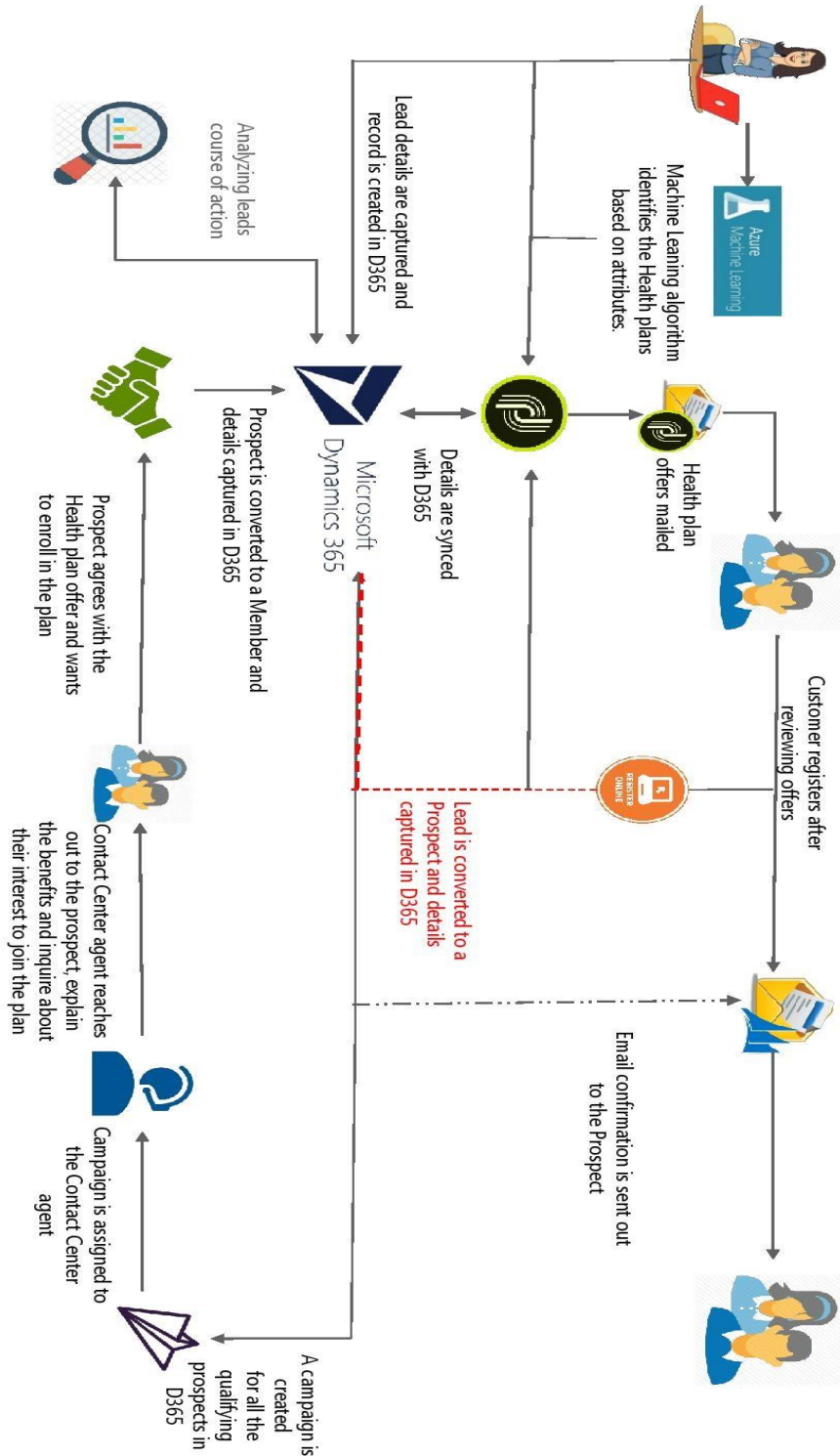


Figure: 8.1.2. Process Flow-Diagram(TO-Be)

9. Business Rules:

#	Rule Name	Definition
1	EROLLMENT IN A HEALTHPLAN RULES	The customer should be already registered in the system. Customer should have a bank account. Policy end Date should be at least for 1 year. All the fields are Mandatory. At the time of payment: Check if the plan is still available or not. Get the preferred plan and Generate the Booking id for the individual plan. Store the Information of Booking in System.
2	RENEW OF HEALTH PLAN RULES	Customer id should be existing one. Booking id should be existing one. The customer should have booked the policy with the entered booking id while purchasing. All the fields are Mandatory.
3	Manage Master Data	In add new policy Policy type should be existing one. Unique Policy ID should be automatically generated. All the details are Mandatory

HIGH LEVEL BUSINESS REQUIREMENTS

Following are the high level requirements of Digital marketing:

- Managing all the Policy
- Managing all the Booking
- Managing all the Hospitals
- Managing all the Doctors
- Managing all the Customer
- Managing all the Payment