

# **Project Planner**

## **A PROJECT REPORT**

**Submitted by**  
**PRINCE TYAGI**  
**University Roll No 1802914012**

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of the Requirements  
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**Under the Supervision of**

**Dr.Sangeeta Arora**  
**KIET Group of Institutions**



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**KIET Group of Institutions, Ghaziabad Uttar Pradesh-201206**  
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I hereby declare that the work presented in this report entitled “PROJECT PLANNER”, was carried out by me. I have not submitted the matter embodied in this report for the award of any other degree or diploma of any other University or Institute.

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Name : Prince Tyagi

Roll. No. : 1802914012

Branch : Master of Computer Applications

**(Candidate Signature)**

# CERTIFICATE



Bridging • Technologies  
ISO 9001:2008 Certified Company

## Miri Infotech Pvt. Ltd.

NOIDA : 401-402, Block B, iThum IT Park,  
Noida Sector - 62 201304.  
Telephone : +91 120 4511299.  
NEW DELHI : 2/5, West Patel Nagar,  
New Delhi - 110008,  
Telephone : +91 11 45053881-88

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This is to certify that **Mr. Prince Tyagi**, MCA Final year student of KIET, Ghaziabad has completed his project work in Miri Infotech Pvt. Ltd., Noida on "Project Planner" under the guidance Mr. Asif, Technical Consultant towards the fulfilment of the award of the degree "Master of Computer Application" during the period of April 19<sup>th</sup>, 2021 to July 31<sup>st</sup>, 2021 .

We wish him all the best in his future endeavors.

For and on behalf of  
**MIRI INFOTECH PRIVATE LIMITED**



Sakshi Sharma  
Human Resources Department

UNITED STATES : 37275 Niles Blvd, Fremont, CA 94536  
WEBSITE : [www.miritech.com](http://www.miritech.com)

## **CERTIFICATE**

Certified that **Prince Tyagi (1802914012)** has carried out the project work presented in this report entitled "**PROJECT PLANNER**" for the award of **Master of Computer Application** from Dr. A.P.J. Abdul Kalam Technical University, Lucknow under my supervision. The report embodies results of original work, and studies are carried out by the student himself and the contents of the report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University.

**Dr. Sangeeta Arora**

Associate Professor

Dept. of Computer Applications

KIET Group of Institutions, Ghaziabad

**External Examiner**

**Dr. Ajay Kumar Srivastava**

Professor & Head

Department of Computer Applications

KIET Group of Institutions, Ghaziabad

Date:

# **Project Planner**

**Prince Tyagi**

## **ABSTRACT**

Salesforce has tons of different functions and capabilities, but it does lack one major feature: Project management functionality. You may be able to get by with some custom configurations or code to help you manage projects and people.

**“Project Planner”** is a Salesforce application which is based on cloud computing. These days we are using databases in which coding is required to enter the data. But this time we have an application which can do our work more simpler and easier i.e Salesforce. The objective of this application is to show how an employee manages their official time working on any project in professional life. It is flexible like data can be deleted enter or updated easily. A software project means a lot of experience. I learned a lot through this project. This project has sharpened our concept of cloud computing.

This concept of cloud computing has now become a great role to play in today's technical world. These technologies will definitely take database systems far away .

Businesses across industries have improved the efficiency of their sales activities while enjoying a significant increase in engagement, revenue, and customer loyalty by using Salesforce reports. In a data-driven age, modern organizations need access to advanced data analytic solutions to help them improve the business in a wealth of key areas-Salesforce is one of those solutions.

Salesforce report templates are centralized, interactive, easy to use, and serve up KPI-driven insights that empower businesses to gain an all-important edge on the competition. Focusing on areas including sales activity, outbound calls, and inbound opportunity management, our specialized Salesforce dashboards will give you a panoramic view of your business—a level of vision that fosters innovation, evolution, progress, and growth.

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**Prince Tyagi**

**1802914012**

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# **Chapter 1**

## **INTRODUCTION**

### **1.1 PROJECT DESCRIPTION**

**“Project Planner”** is taking a concept from “**Cloud Computing**” and Salesforce was founded by **“Marc Benioff”**

Salesforce report is a management tool that offers a visual representation of essential sales-based data through a centralized cloud-based reporting platform. Its goal is to enhance critical elements of a business, including marketing, sales, commerce, and service. Consolidating data from several sources, reports assist users in identifying relevant KPIs and, consequently, trends that will allow them to formulate strategies that improve efficiency and boost productivity, enhancing internal communication across the board.

This application will be developed for PC's , we can access it from anywhere and even from the phone easily using the salesforce application.

### **1.2 PURPOSE OF PROJECT**

In a data-driven age, modern organizations need access to advanced data analytics solutions to help them improve the business in a wealth of key areas—Salesforce is one of those solutions. One of the world's most popular cloud-based customer relationship management (CRM) platforms, the software is designed to help companies across sectors plan and optimize their sales processes. Salesforce report is a management tool that offers a visual representation of essential sales-based data through a centralized cloud-based reporting platform. Its goal is to enhance critical elements of a business, including marketing, sales, commerce, and service. Consolidating data from several sources, reports assist users in identifying relevant KPIs and, consequently, trends that will allow them to formulate strategies that improve efficiency and boost productivity, enhancing internal communication across the board.

Salesforce provides you with the fastest path from Idea to App. You can concentrate on building your app using Salesforce tools, rather than building the infrastructure and tools yourself. This can save you years of time and millions of dollars.

Salesforce customers generally say that it's unique for three major reasons:

**Fast** – Traditional CRM software can take more than a year to deploy, compare that to months or even weeks with Salesforce.

**Easy** – Salesforce wins in the easy to use category hands down. You can spend more time putting it to use and less time figuring it out.

**Effective** – Because it is easy to use and can be customized to meet business needs, customers find Salesforce very effective.

Salesforce is in the cloud, so your team can use it from anywhere with access to the internet. If you are a business that is rapidly changing or you are a seasoned company that's been around for years, your business is probably changing too. Salesforce is completely scalable to your growth.

Salesforce seamlessly integrates with 3rd party apps. If you want to integrate Salesforce with Gmail you can do it, if you want to integrate it with your accounting software you can do that too. On the other hand, integration is tough with other CRMs. Salesforce is affordable, especially if you consider its vast variety of capabilities. Even startups and small businesses can use Salesforce.\

### 1.3 Scope:

Employees can use their device (laptop, mobile, desktop) or you can provide your lab. We set up a branded solution for you (Software as a Service) and maintain every upgrade of the platform, right from hardware to software.

Our flagship product is built from scratch for engineering institutes with one objective: make employees work easily. Whether it is an office project or other project, we enable employees and clients to be successful by capturing, measuring, and analyzing the right data.

Employees are at the core of the platform. We not only assess but also are part of the journey to accomplish the mission. Whether it is about managing our timing of projects or giving reports to clients, we enable you for success.

This type of software is suitable for all Employees.

- Public: Since an open project needs public communications.
- Approachable: Needs to be accessible to potential new community members, ideally without making them learn something new.
- Asynchronous: with people all around the world, the primary communications need to be not-real time.
- Multiple participant: Multiple User Participation
- Searchable: Easy Search
- Filterable: no-one can read every project communication; there needs to be a way of splitting by topic
- Accessible: needs to be accessible to new and future disabled community members.

## **Chapter 2**

### **Literature Review**

Forms of control systems used in salesforce evaluation and based on the monitoring of outcomes or of behaviors are described, contrasted, and evaluated in terms of emerging theories in economics, organization theory, and cognitive psychology. Generally, the principles of behavior control as opposed to outcome control are found to be consistent with these theoretical perspectives with exceptions as noted, though studies of descriptive trends suggest that outcome control remains useful as a sales management philosophy.[1]

Using data from 39 empirical studies with a cumulative sample of 6678 respondents from multiple countries, this meta-analysis examines the influence of the two main types of formal salesforce controls – behaviour and output – on salespeople's revenue performance. The authors employ Hierarchical Linear Modeling as well as Path Modeling to analyse the data. The findings show that both behaviour and output controls have a positive impact on revenue outcomes, although the average effect sizes are small. Interestingly, the effect of the former is greater than the latter.[2]

Salesforce acquiring Mulesoft opens up vast opportunities to integrate data with Salesforce using powerful Mulesoft capabilities like the Batch Processing. [3]

On-demand computing has transformed enterprise software, lowering risk and cost while increasing user adoption and customer success. To be successful, an application must be designed for on-demand from the ground-up, including core architectural elements such as multitenancy, availability, performance, security, metadata-driven customization, integration via web services, etc.[4]

To gain greater insight into how climate affects salemen's feelings about their jobs, the relationships between each climate variable and each of seven components of job satisfaction also are examined. [5]

An important issue that has attracted the interest of academics and practitioners in both marketing and operations is, should pricing decisions be made by the firm or delegated to the salesforce? This problem has been addressed in the research literature based on the assumption that the exact risk aversion coefficients of the sales agents are known to the firm, which may not be true in most applications. [6]

Enterprises today constantly seek to reduce the cost of their IT-operations. One popular approach is to outsource (parts) of these IT-operations. With the advent of Cloud computing, the outsourcing of infrastructure, runtime platforms and even whole applications has been greatly facilitated. With platforms such as Amazon's EC2 or Salesforce's Force.com customers can select from a set of pre-defined machine images or applications that they can then run on-demand.[7]

Cloud computing relies on software for distributed batch and stream processing, as well as distributed storage. This chapter focuses on an oft-ignored angle of assuredness: performance assuredness. A significant pain point today is the inability to support reconfiguration operations, such as changing of the shard key in a sharded storage/database system, or scaling up (or down) of the number of virtual machines (VMs) being used in a stream or batch processing system.[8]

These software delivery platforms (SDP) are meant to serve as the basis for the delivery of an important percentage of the software offer. On the other hand, application development over these new platforms is not a defined process. Building applications over an SDP change the way software is designed, developed and delivered.[9]

Cloud computing has become the industry standard for rapid application deployment, scalable server support, mobile and distributed services, and it provides access to (theoretically) infinite resources. Unfortunately, researchers are still trying to converge towards cross-provider cloud computing frameworks to enable compatibility and seamless resource transition between cloud providers.[10]

Cloud computing is the development of parallel computing, distributed computing and grid computing. It has been one of the most hot research topics. Now many corporations have been involved in the cloud computing related techniques and many cloud computing platforms have been put forward. This is a favorable situation to study and application of cloud computing related techniques.[11]

Social network ties were particularly necessary in increasing salesforce behavioural performance while poor family background coupled with lack of career planning, limited professional sales presentation impacted negatively on the performance of the sales career. Serendipity, development networks, social dyadic interactions with customers and key stakeholders were found necessary in generating, building and retaining customers.[12]

We analyze how salesforce incentives influence a firm's remanufacturing strategy and profitability. We first consider a salesforce incentive model based on the practice of a North American consumer products firm, which offers commissions based on the total revenue generated from new and remanufactured product sales. We then consider a model with differentiated linear commissions for new and remanufactured products. We show that the incentives offered to a salesforce to induce effort can create conditions where a firm should not sell remanufactured products, even if the cost of remanufacturing is negligible.[13]

We study the effects of the contributor's prior participation and prior implementation rate, as well as the idea's popularity, length, and supporting evidence on the idea's implementation likelihood. Our model is validated through logistic regression on a secondary dataset of 19,964 user ideas collected from two large user innovation websites, [Salesforce.com](#) IdeaExchange and Dell IdeaStorm.[14]

We perform several experiments to measure the feasibility and effectiveness of EET by comparing it with a commercially available multi-tenant schema mapping technique used by SalesForce.com. We report significant performance improvements obtained using EET when compared to Universal Table Schema Mapping (UTSM), making the EET schema a good candidate for the management of multi tenant data in Software as a Service (SaaS) and Big Data applications.[15]

# **Chapter – 3**

## **Analysis**

The basic requirements for the design of the Project Management are:

- Every user should have their own identity
- Users can update his/her personal information and can view all details related to the project.
- Users can see the timing of every project which they are working on.

### **3.1 Functional Requirements**

The Project Management system aims to improve the efficiency of Office information management, and the main function is managing and maintaining information regarding projects. The administrator and Employees are two major functional requirements in the system. The Administrator will be given more powers (enable/disable/update) than other users. It will be ensured that the information entered is of the correct format. For example, names cannot contain numbers. In case an incorrect form of information is added, the users will be asked to fill the information again.

### **3.2 Non-Functional Requirements**

- **Performance Requirements:** The proposed system that we are going to develop will be used as the chief performance system for helping the organization in managing the whole database of the project studying in the organization and having message notifications. Therefore, it is expected that the database would perform functionally all the requirements that are specified.

- **Safety Requirements:** The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.
- **Security Requirements:** We are going to develop a secured database. There are various categories of people namely Administrator, Employees who will be viewing either all or some specific information. Depending upon the category of user the access rights are decided. It means if the user is an administrator then he can be able to modify the data, append etc. All other users only have the rights to retrieve the information from the database.

## CHAPTER 4

### CLOUD COMPUTING

#### 4.1 About:

Cloud computing relies on software for distributed batch and stream processing, as well as distributed storage. This chapter focuses on an oft-ignored angle of assuredness: performance assuredness. A significant pain point today is the inability to support reconfiguration operations, such as changing of the shard key in a sharded storage/database system, or scaling up (or down) of the number of virtual machines (VMs) being used in a stream or batch processing system. We discuss new techniques to support such reconfiguration operations in an online manner, whereby the system does not need to be shut down and the user/client-perceived behavior is indistinguishable regardless of whether a reconfiguration is occurring in the background, that is, the performance continues to be assured in spite of ongoing background reconfiguration. Next, we describe how to scale-out and scale-in (increase or decrease) the number of machines/VMs in cloud computing frameworks like distributed stream processing and distributed graph processing systems, again while offering assured performance to the customer in spite of the reconfigurations occurring in the background. The ultimate performance assuredness is the ability to support SLAs/SLOs (service-level agreements/objectives) such as deadlines. We present a new real-time scheduler that supports priorities and hard deadlines for Hadoop jobs. We implemented our reconfiguration systems as patches to several popular and open-source cloud computing

systems, including MongoDB and Cassandra (storage), Storm (stream processing), LFGraph (graph processing), and Hadoop (batch processing).

Cloud computing has become the industry standard for rapid application deployment, scalable server support, mobile and distributed services, and it provides access to (theoretically) infinite resources. Unfortunately, researchers are still trying to converge towards cross-provider cloud computing frameworks to enable compatibility and seamless resource transition between cloud providers. Moreover, users are restricted to using the provider-specific pre-configured options of resources and services, irrespective of their current needs. At the same time, cloud services are provided as a direct service from the providers to the clients. This creates a segregated cloud market clientele, and non-negotiable pricing 10 strategies for the cloud services. In this paper, we propose Jugo, a generic architecture for cloud composition and negotiated service delivery for cloud users. Jugo acts as a match-maker for service specifications from the users with the currently available assets from the cloud providers. The engagement of a middle-man as an opaque cloud service provider will create a better opportunity for cloud users to find cheaper deals, price-matching, and flexible resource specifications, with increased revenue and higher resource utilization for the cloud service providers.

Many enterprises in industries start using Cloud Computing for their IT infrastructure services. This adoption of Cloud Computing is a part of the enterprise transformation which is the migration from a legacy IT environment to Cloud Computing. On the other hand, one of major targets is an industry solution which provides a critical business service to their end customers. This paper proposes Industry Cloud which is the enhanced design of Cloud Computing for industry solutions. It efficiently supports industry solutions for enterprise business requirements. The paper describes Industry Cloud with a requirement analysis of industry solutions, those adopted functions, and three use case scenarios in the electronics and retail industry. The contribution of the paper is the analysis of industry wide requirements, the definition of Industry Cloud with a common function among industry solutions and the usage with use case scenarios.

The complexity of Cloud infrastructures is increasing every year, requiring new concepts and tools to face off topics such as process configuration and reconfiguration, automatic scaling, elastic computing and healthiness control. This paper presents a Smart Cloud solution based on a Knowledge Base, KB, with the aim of modeling cloud resources, Service Level Agreements and their evolution, while enabling the reasoning on cloud structures and implementing strategies of efficient smart cloud management and intelligence. The solution proposed is composed of Smart Cloud Engine, SCE, the Knowledge Base, KB, and the Supervisor and Monitoring module for data acquisition. It can be easily integrated with any cloud configuration manager, cloud orchestra or, and monitoring tool, since the connections with these tools are performed by using REST calls and XML files.

Current Cloud Computing is primarily based on proprietary data centers, where hundreds of thousands of dedicated servers are set up

to host the cloud services. In addition to the huge number of dedicated servers deployed in data centers, there are billions of underutilized Personal Computers (PCs), usually used only for a few hours per day, owned by individuals and organizations worldwide. The vast untapped compute and storage capacities of the underutilized PCs can be consolidated as alternative cloud fabrics to provision broad cloud services, primarily infrastructure as service. This approach, thus referred to as the "no data center" approach, complements the data center based cloud provision model. In this paper, we present our opportunistic Cloud Computing system, called cuCloud, that runs on scavenged resources of underutilized PCs within an organization/community. Our system demonstrates that the "no data center" solution indeed works. Besides providing our concept, model, and philosophy, our experimental results are highly encouraging.

Whatever one public cloud, private cloud or a mixed cloud, the users lack of effective security quantifiable evaluation methods to grasp the security situation of its own information infrastructure on the whole. This paper provides a quantifiable security evaluation system for different clouds that can be accessed by consistent API. The evaluation system includes security scanning engine, security recovery engine, security quantifiable evaluation model, visual display module and etc. The security evaluation model composes of a set of evaluation elements corresponding different fields, such as computing, storage, network, maintenance, application security and etc. Each element is assigned a three tuple on vulnerabilities, score and repair method. The system adopts "One vote vetoed" mechanism for one field to count its score and adds up the summary as the total score, and to create one security view. We implement the quantifiable evaluation for different cloud users based on our G-Cloud platform. It shows the dynamic security scanning score for one or multiple clouds with visual graphs and guided users to modify configuration, improve operation and repair vulnerabilities, so as to improve the security of their cloud resources.

To move applications to the cloud is not only a technical decision but also a business-oriented decision, in which both business and technical factors (e.g. transformation effort, multi-tenancy and auto-scaling enablement, scalability and extensibility) should be considered. However, existing approaches and tools do not support a consumable business oriented cloud transformation decision to select a more suitable transformation solution with the right cloud delivery model, services type, affordable transformation effort etc. In this paper, we introduce a practical three-step approach and a tool, CTA (Cloud Transformation Advisor) to enable decision makers to identify the most suitable cloud transformation solution to satisfy their business goals based on a well-structured cloud transformation knowledge base.

## 4.2 SALESFORCE

The Salesforce Platform stores data in relational tables. The records in these tables contain data for the structure of the platform itself as well as user created data. For example, the data about the configuration and settings of an account are already in-built as a relational table. But you can also create your own tables to store data specific to your business like the 'dispatch schedule' for a week assuming you are a courier company.

These relational tables are roughly referred to as API Objects or only objects in Salesforce. There are three kinds of Salesforce objects.

- Standard Objects – The objects already created for you by the Salesforce platform.
- Custom Objects – These are the objects created by you based on your business processes.
- External Objects – The objects which you create map to the data stored outside your organization.

## 4.3 Standard Objects

There are many objects which already exist in the Salesforce platform to manage the configurations and settings of the environment. Once you log in to the salesforce platform, you can see the available objects.

### Important Standard Objects

In this section, we will discuss the important standard objects in Salesforce. The following table lists down the objects –

#### Object Name

##### 1. Account

**Meaning:-**Represents an individual account, which is an organization or person involved in the business like customers, competitors, partners, etc.

**Usage:-**Use this object to query and manage accounts in your organization.

## **2. Account History**

**Meaning:-**Represents the history of changes to the values in the fields of an account.

**Usage:-**Use this object to identify changes to an account.

## **3. Case**

**Meaning:-**Represents a case, which is a customer issue or problem.

**Usage:-**Use the case object to manage cases for your organization.

## **4.Contact**

**Meaning:-**Represents a contact, which is an individual associated with an account.

**Usage:-**This object is used to manage individuals who are associated with an Account in the organization.

## **5. User**

**Meaning:-**Represents a user in the organization.

**Usage:-**This object is used to query information about users and also helps to provide and modify the information concerning the users.

## **Asset**

**Meaning:-**Represents an item of commercial value, such as a product sold by the company or a competitor that a customer has purchased and installed.

**Usage:-**This object is used to track assets previously sold into customer accounts. With asset tracking, a client application can quickly determine which products were previously sold or are currently installed at a specific account.

## **Domain**

**Meaning:-** Read-only object that represents a custom Web address assigned to a site in your organization.

**Usage:-**This read-only object is used to query the domains that are associated with each website in your organization.

As IT technology advanced, a new style of innovation emerged, in which a leading innovation company invites end-users to its open software service platform. With respect to this type of innovation, a lot of innovation studies were performed to understand the structure of the interaction among users and the platform provider from the perspective of network science. By concentrating only on the internal mechanisms among agents, the previous studies miss the opportunity to consider innovation through collective intelligence. A platform provider plays an important role in the innovation. In this research, we investigate the structure of a service network with empirical data gathered from Salesforce.com App Exchange and discuss the role of a platform provider in innovation through collective intelligence. Our results suggest that the platform provider led the innovation in the initial period and, then, third party developers gradually became innovation leaders. Our findings are expected to re-orient the research focus from internal mechanisms to the role of platform providers.[8]

With the appearance of distributed computing, associations are hoping to move their Customer Relationship Management (CRM) applications from an On-Premise environment or we can say local servers to an On-Demand environment that is on cloud server. On-Premise environment is when an association has the framework and programming inside their system. In an On-Demand environment, an outsider has the base and programming and charges the relationship in light of its participation. Salesforce is the principle On-Demand CRM thing.[9]

The advantages of cloud while supporting real-time service systems using the Salesforce platform. We build here a service management platform for the Polish Billiards and Snooker Association (PBSA), based on a real-time system located in a cloud. It allows PBSA managers to accomplish tasks in this system on-demand. And, it is deployed as a private cloud to grant an access only to the employees from the snooker organization.[10]

In a recent scenario, IT industries are growing with the help of proper Utilization of available resources. The IT giants like Microsoft, Infosys, IBM, Oracle, & TCS are switching from their on premises IT setups to the cloud. Cloud computing is replacing the traditional model in which software applications are installed on on-premise hardware, from desktop computers to server rooms, depending on the size of the business. The proposed work is about the cloud platform which is going to change all the traditional views of software, application, and product development Technologies. Salesforce.com is one of the best cloud providers available in the recent scenario. There are a number of

reasons why IT industries are switching to the Cloud. And there are a number of reasons why Industries have to think about adopting the Salesforce.com cloud. The proposed work is about to focus on important and common features of salesforce.com. These features are common for any developer to learn and use in software, application and product development in salesforce.com. The goal of this proposed work is to show the available resources in the salesforce.com which are still new for the developers. This an approach to make people familiar with the salesforce.com cloud provider.[11]

Summary form only given as follows. The strongest predictors of new product success is understanding market requirements early in the new product development (NPD) process. A direct salesforce 17 is one of the best sources of new product ideas and market information, although not fully leveraged in many firms. A recent study of 248 salespeople in nineteen high-tech firms indicates wide variation in NPD involvement across and within a firm's salesforce. The study revealed that at the organization level, the length of the NPD cycle was associated with salesforce-initiated and NPD-headquarters initiated activities. In particular, the longer a firm's NPD cycle for product improvements, the lower the involvement the salesforce has in headquarters initiated involvement activities. A significant relationship exists between a firm's new product cycle time and the level of involvement in salesforce-initiated NPD predevelopment activities. At the salesperson level, several factors affect involvement in NPD activities. Most significant was the relationship between salesperson involvement and the distance between a salesperson's location and the NPD office site. The study shows that organizations can affect the degree of involvement that their salesforce or individual salespeople have in early phases of NPD.[12]

Motivation is important because it determines an individual's effort toward performing a task and it leads to an optimistic and challenging attitude at the workplace. Incentive motivation is concerned with the way goals influence behavior. Incentive is the promise or stimulus for greater action. Incentives are something that is given in addition to wages. It means additional remuneration or benefit to an employee in recognition of achievement or better work. Organizations in emerging markets are more likely to give group rewards and generally do not encourage risk taking as much as developed economies. Money motivates employees to some extent but there are other powerful sources of motivation such as interesting and challenging tasks and assignments, praise, good interpersonal relations etc. This paper analyzes incentives plan structure of sales people in Croatia. Advantages and disadvantages of different compensation plans and benefits for salespeople are discussed.[13]

Modern business decision models are often very complicated due to a deluge of information. Evaluation and diagnostics of such decision models is extremely challenging due to many factors, including the complexity and volume of data. In addition, since there is no ideal data sample to construct a control group for comparison studies, performance

evaluation and diagnostics of business actions can easily be distorted by selection bias. In this paper, we design a framework to analyze this sample bias issue under a practical business scenario. In particular, we focus on: a) identification of the key factors which drive selection bias during the business decision; b) evaluation of the performance of business actions with consideration of the identified selection bias. We evaluate baseline analytics tools on the worldwide salesforce data of a large global corporation and clearly demonstrate that the selection bias issue makes the usual evaluation very unstable and not trustable. However, by removing such detected sample bias, our framework can generate reasonable diagnostics results across different dimensions. The implemented analysis tool was applied to a worldwide business opportunity dataset of a multinational Fortune 500 corporation; the analytics results clearly show the significance of such a bias detection-based evaluation framework for sales-force optimization.[14]

Estimating generalizable relationships between actions and results from historical samples, especially when there is a level of noise or randomness in that signal, is an important problem to address before making decisions on actions to take. Many business analytics problems require the optimal assignment of limited resources to actions and activities to maximize some result or objective such as profit. We present a novel approach to solving this class of analytics problems by modeling the relationship between resource effort and expected return as a dose-response signal and formulating its causal estimation as one of kernel regression. The estimated expected value and variance of the result are then used to optimize resource allocation so as to maximize expected response while minimizing the risk around response subject to business constraints. We apply this approach to the task of optimally assigning salespeople to enterprise clients using real-world data, and show that profit can be substantially increased with fewer salespeople and reduced risk.[15]

# Chapter – 5

## TECHNOLOGY USED

### 5.1 Salesforce

Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers.

Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

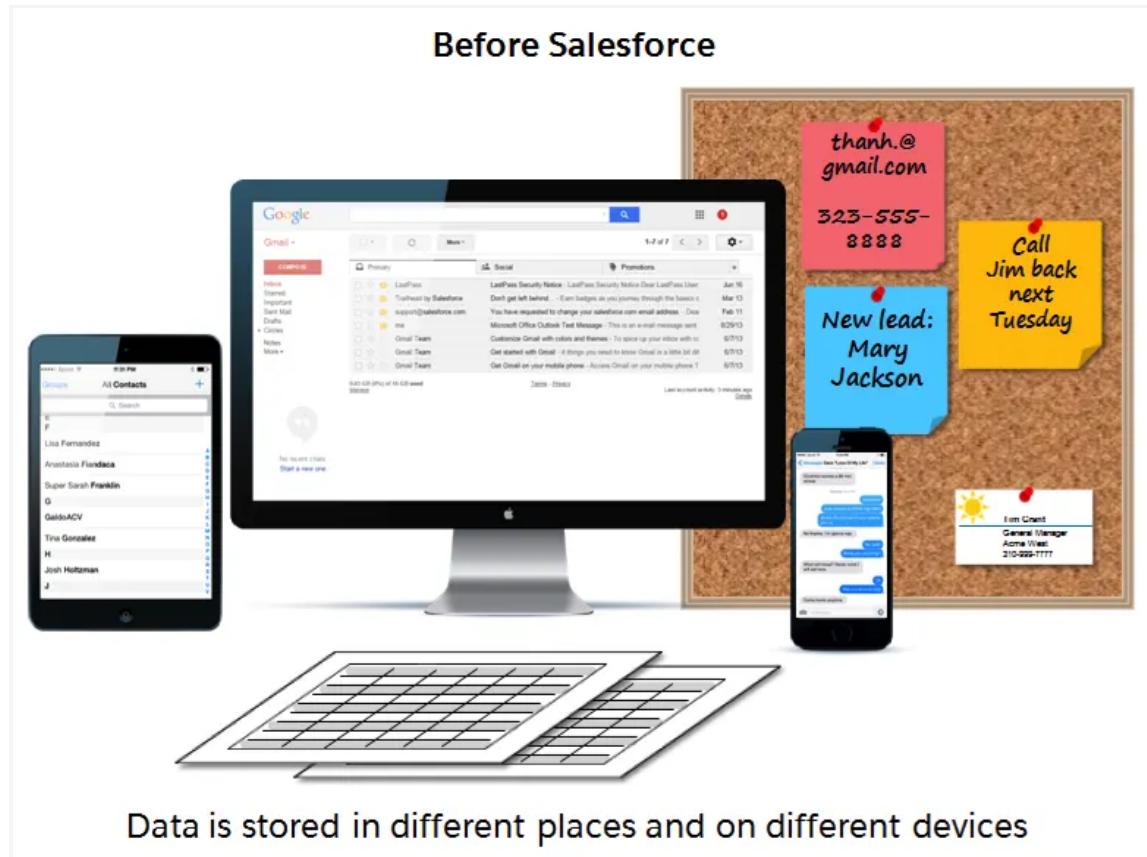


Fig. 5.1 Work Before Salesforce

If your data is stored in spreadsheets, hidden in emails or text messages, or pinned to your bulletin board, it's hard to get the full picture of your prospective customer. And you certainly can't access the data from anywhere, anytime, nor can your manager or executives see your progress on deals in flight, at least not without calling you for a status update.

Salesforce takes all of that important data and organizes it into a simple user interface. It's one place for you to:

- Manage all your contacts
- Work with your prospective customers
- Organize tasks and to-do items
- Focus on the right deals
- Collaborate with your team
- Showcase your big wins
- Close more business

Simply put, Salesforce is one place for you to do stuff. And because it's stored on our secure cloud, you can access your data anytime, anywhere, whether you're on desktop or mobile

## After Salesforce



Data is all in Salesforce, accessible via the cloud from any device

**Fig. 5.2 After Salesforce Data**

When everything's in Salesforce, you don't need to worry about the note you left on your desk, or a file you have stored on your hard drive. You can find everything you need simply by logging in.

In addition, you no longer need to worry about updating your manager on how things are going with your top deals in flight. Instead, your manager can just log into Salesforce and see the latest data in real time.

This visibility is one of the key benefits of Salesforce. But rest assured, there are powerful security and sharing features that protect sensitive data and ensure the right folks see the right data.

## 5.2 Who Sees What?

Access determines your ability to open and interact with data stored in Salesforce. The data you can create, view, edit, and delete is determined by settings your admin maintains (we'll talk more about your admin in the next unit). Access can be simple or multilayered, depending on the complexity of your company's needs. The important thing you need to know is that Salesforce has options for who can see and edit data, and your admin helps to set these up and maintain them.

With the right security enabled, your whole company can be on Salesforce, and one of the best reasons to do that is to harness the power of collaboration.

## 5.3 Collaboration Using Salesforce

In addition to technology for managing your sales process, Salesforce includes a platform for collaboration. You can create groups, follow people and topics, ask questions, post informal polls, share files and links, and mention colleagues with whom you'd like to connect.

Chatter > Groups > Lightning Experience Rollout

Help for this Page [?](#)

**All Updates** > **This Update**

**Victoria Washington**  
Thanks so much for attending our kickoff meeting today! Here is the presentation we shared in the meeting. Let's do this! #Awesome

**Project Kickoff**  
[Download pptx \(295 KB\)](#) · More Actions

Topics: Awesome

Comment · Like · Share · Today at 8:25 AM

**John Wheeler**  
Great meeting today, Vicky. Nice job!

I also got this file from @Gloria Mendoza. I think it could be helpful in planning our rollout.

**Lightning Experience Rollout Checklist image**  
[Download docx \(37 KB\)](#) · More Actions

Unlike · 1 person · Today at 8:26 AM

**Victoria Washington**  
That's great, John! Thanks for sharing. I'm so glad to be working with you and the whole team on this rollout.

Like · Today at 8:26 AM

**Email**  
Post by email to Lightning Experience Rollout.

**Manager**

**Members** Show All (5)

Add/Remove Members  
Invite People  
Change Roles

**Group Records**  
No records yet? Learn about adding records to groups.

**Group Files** Show All (3)

Gap Analysis  
Lightning Experience...  
Project Kickoff

**Fig. 5.3 Collaboration Using Salesforce**

You can also ask questions and get answers, crowdsourcing expertise from across your company. You can find experts who can help you with overcoming objections as they come up. You can search for competitive information to help you through the negotiation stage. You can get help from your leaders and teammates as you work on steps to close.

**Chris Closer** Just Now

Hey @Sam Sellsalot did you work with Kathryn back in Boston? Can we grab coffee and talk over strategies for this lead?

**Like**

**Sam Sellsalot** – Just Now

Absolutely. I know Kathy very well. Let's chat - my calendar is up to date.

Liked · 1 like

**Fig. 5.3.1 Collaboration Using Salesforce**

But perhaps the best part about collaborating in Salesforce is that it's all stored for future reference. Rather than having key insights and answers to important questions living in individual email inboxes or in hallway conversations, collaboration in Salesforce is accessible and searchable. In this way, your collaboration in Salesforce can become your corporate memory, allowing you to capture and share relevant content that builds over time, increasing in value the more your whole company engages.

And because it's in Salesforce, this is collaboration that can happen in context, right on individual deals, tasks, support issues, and more. This is the power of collaboration combined with CRM. Let's talk about that next, starting with defining what CRM is.

## 5.4 What is CRM?

CRM stands for Customer Relationship Management. This technology allows you to manage relationships with your customers and prospects and track data related to all of your interactions. It also helps teams collaborate, both internally and externally, gather insights from social media, track important metrics, and communicate via email, phone, social, and other channels.

In Salesforce, all of this information is stored securely in the cloud. Let's take a closer look at how that works, using an example you might be familiar with—a spreadsheet.

## 5.5 How Salesforce Organize Your Data

Salesforce organizes your data into objects and records. You can think of objects like a tab on a spreadsheet, and a record like a single row of data.

The screenshot illustrates the Salesforce Lightning Experience interface. At the top, there's a navigation bar with tabs for Accounts, Contacts, and Opportunities. Below the navigation bar, a table displays a single record: Global Media - 220 Widgets. This record includes fields for Account Name (Acme), Close Date (1/30/2018), Amount (\$12,000,000), and Opportunity Name (Global Media - 220 Widgets). To the right of the record, there are buttons for Follow, Edit, New Case, and New Note. On the far right of the page, there's a sidebar with sections for Products (1) and Notes & Attachments (1).

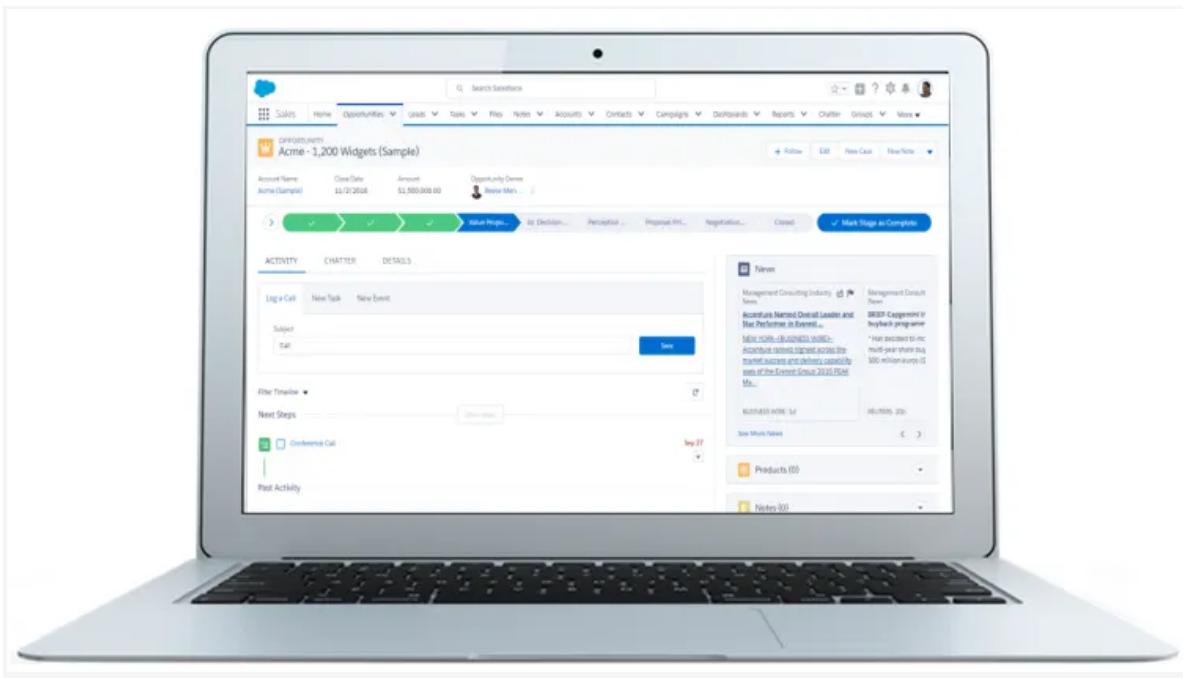
**Fig. 5.5 How Salesforce Organize Your Data**

Salesforce is a cloud-based software company that provides its customers with a platform to develop their own applications without following the tough steps that they used to follow in the legacy system. The software or application once created can be uploaded onto the cloud allowing the end-users to view them. Salesforce is currently providing various software solutions and platforms for developers to create and distribute custom software/applications. Tech giants like Google, Twitter, Amazon, and Facebook are using Salesforce either in the form of SaaS or PaaS. By using Salesforce, developers can make an application on the cloud and share it with multiple companies across multiple domains.

## 5.6 Welcome to Lightning Experience

Welcome to Lightning Experience! Lightning Experience is a modern, productive user experience designed to help you do more and be more efficient.

With Lightning Experience, we've re-envisioned the desktop experience to support your sales and service processes. The result is a more productive interface, designed to support how sales reps and service agents work on a daily basis.



**Fig. 5.5 Welcome to Lightning Experience**

When we're talking about Lightning Experience, we're talking about pages in Salesforce optimized for sales and service use. We're talking about new features that help you focus on the right activities, every time you log into Salesforce. We're talking flexible, interactive tools that you can use to visualize data on the fly and work deals in flight.

## 5.7 Login to Salesforce

How you log in will be determined by how your Salesforce Admin has set up your org. For example, you might go to a custom URL to log in, where you'll enter your credentials and then be directed into your Salesforce org. Check with your Salesforce Admin for your company's login process.

For customers logging in through the standard process, steps to log in are as follows:

1. Salesforce Admin sets you up as a user in your Salesforce org.
2. You'll receive an email with a link to login and set your password.
3. Click the link, set your password and security question, and click **Save**. You'll then

be redirected to your Salesforce org.

On subsequent visits, steps to log in are as follows:

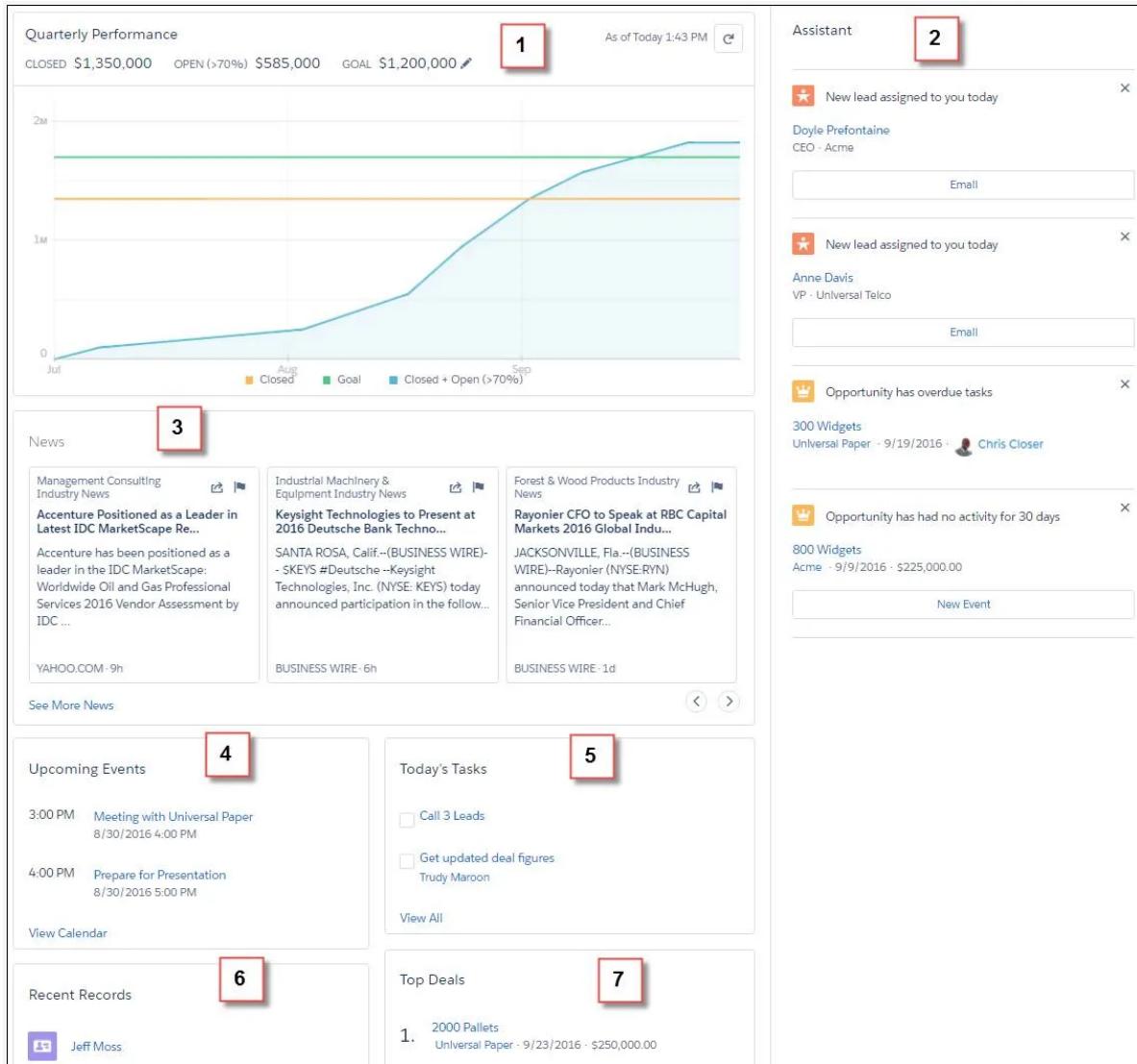
- 1.Go to login.Salesforce.com.
- 2.Enter your username and password and click **Login to Salesforce**.

Once you're logged into Salesforce, you'll be directed to Home. Let's talk about that first.

### **5.8.1 Home**

Home is the first place you'll land when you log into Salesforce. It's a modern, intelligent home page, featuring a number of tools to help you start your day fast. From Home, you can monitor your performance to goal and get insights on key accounts. You can also access the Assistant, a list of things to do and places to be. Your Salesforce admin can create custom Home pages that appear for different profiles, so you may see different features on your Home page.

- Use the Assistant to identify exactly what you need to be doing today
- Use the Performance Chart to monitor how close you are to crushing your number
- Get insights fast with News
- Focus your selling activities on your Top Deals.



**Fig. 5.8.1 Home**

1. Performance Chart: Monitor and update your performance to goal.
2. Assistant: Stay on track by seeing the leads and opportunities that require your attention.
3. News: Get insights at a glance on your important accounts.
4. Upcoming events: See the next five meetings on your calendar today.
5. Today's tasks: See up to five tasks due today.

6. Recent records: Access links to recently viewed records.
7. Top deals: View your top open opportunities in a convenient list.

## 5.8.2 Opportunity Workspace

If you remember the definitions that we reviewed in the previous unit, opportunities are leads that are qualified to buy. Whether you're coming from Home, the navigation menu, Search, or a related record in Salesforce, once you click on an opportunity, you need a powerful workspace where you can get stuff done quickly and focus your energy on selling.

Enter the opportunity workspace. Here, your sales process takes center stage, with customized coaching scripts for each stage in the sales process, at-a-glance insights and activity timeline, and the ability to create records quickly with fewer clicks.

The screenshot shows the Opportunity workspace for an opportunity named 'Acme - 1,200 Widgets (Sample)'. The workspace includes:

- Header:** Shows the opportunity name, account name ('Acme (Sample)'), close date ('8/9/2015'), amount ('\$140,000.00'), and opportunity owner ('Admin User').
- Stage Progress Bar:** A green bar with stages: 'Needs Analysis' (highlighted with a red box labeled '2'), 'Proposal', 'Negotiation', and 'Closed'.
- Activity Section:** Buttons for 'New Task', 'New Event', and 'Email'. A red box labeled '3' highlights the 'Subject' input field.
- Next Steps:** A list of tasks with icons and labels: 'Follow up' (red box labeled '4'), 'Review proposal', 'Internal opportunity team prep call', 'Meet with CEO', and 'Email: Checking in'.
- Related Information:** A sidebar on the right lists 'Contact Roles (3)', 'Opportunities (2+)', 'Products (0)', and 'Notes (2)'.
- Bottom Footer:** Shows 'Today' and a list of recent activities.

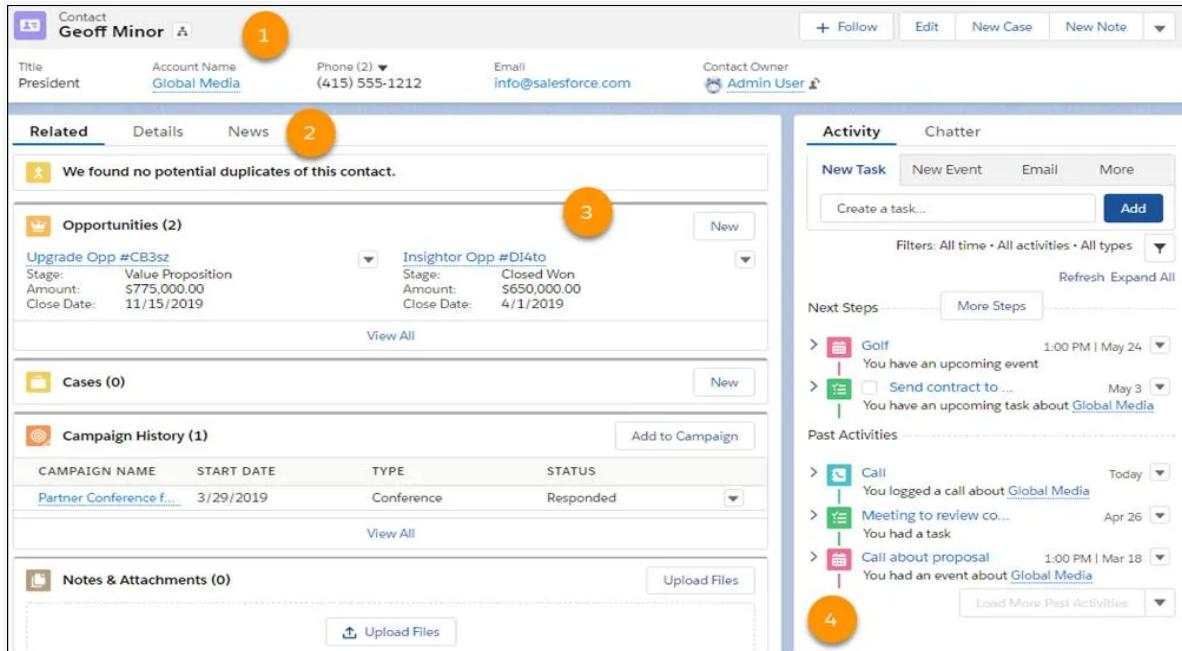
Fig. 5.8.2 Opportunity Workspace

- 1.Highlights Panel: See important information right at the top of the record.
- 2.Path: Access customized guidance for each stage in your sales process.
- 3.Composer: Quickly log a call, create a task, or send an email.
- 4.Activity Timeline: View emails, tasks, and events, grouped by your next steps and past activity.
- 5.Quick View: Hover over any linked record to see details without having to leave the page.

### **5.8.3 Accounts and Contacts**

Remember that when a lead is converted, an account and contact are also created in Salesforce. An account is a company you're doing business with, and a contact is someone who works at that account. Just like opportunities, anytime you drill into an account or contact, you need to find what you need quickly. But unlike opportunities, you're less likely to need to make updates. Instead, we've optimized the layout for these pages for quick reference, allowing you to find information and gather insight at-a-glance.

- Get the latest news about your customers with integrated Twitter and News
- Work smarter and keep your data clean with field-level duplicate matching
- Locate important data efficiently with layout designed specifically for quick reference
- Review past and upcoming activities at a glance



**Fig. 5.8.3 Accounts and Contacts**

1. Highlights Panel: See important information right at the top of the record.
2. News and Twitter Integration: Stay informed about the latest news that affects your customers and stay connected through social media.
3. Optimized template: Easy reference to related records and at-a-glance information.
4. Activity Timeline: View emails, tasks, and events, grouped by your next steps and past activity.

## 5.9 List Views

List views let you see records that are important to you. Using filters, you can create customized lists of accounts, contacts, opportunities, or other records in Salesforce. For example, create a list view of opportunities you own and add a filter on amount to help you find your biggest deals in the pipeline.

List views are more than just columns of text. Power up your productivity with list view charts to visualize your data graphically with a handy chart. And it's all created on the fly without an admin's help.

Visualize data in seconds with list view charts

Quickly slice your data how you want by creating filters on the fly

Find a favorite list view fast with type-ahead search

The screenshot shows a Salesforce Leads list view titled "All Open Leads". The top navigation bar includes a star icon, the list name, a dropdown menu, and a pin icon. Below the header is a search bar and a toolbar with several icons: New, Import, Add to Campaign, a gear for list view controls, a refresh, a grid for layouts, a pencil for edit, a chart for charts, and a filter icon. The main area displays a table of 22 leads, each with columns for Name, Company, Phone, Email, Lead Status, and Lead Source. The table has sorting arrows for Name and Company.

	Name ↑	Company	Phone	Email	Lead Status	Lead Source
1	Andy Young	Dickenson plc	(620) 241-6200	a_young@dickenson.com	Closed - Converted	Purchased List
2	Bertha Boxer	Farmers Coop. of Florida	(850) 644-4200	bertha@fcf.net	Working - Contacted	Web
3	Betty Bair	American Banking Corp.	(610) 265-9100	bblair@abankingco.com	Nurturing - Contacted	Purchased List
4	Bill Dadio Jr	Zenith Industrial Partners	(614) 431-5000	bill_dadio@zenith.com	Closed - Not Converted	Web
5	Brenda McClure	Cardinal Inc.	(847) 262-5000	brenda@cardinal.net	Working - Contacted	Web
6	Carolyn Crenshaw	Ace Iron and Steel Inc.	(251) 679-2200	carolync@aceis.com	Closed - Not Converted	Phone Inquiry
7	David Monaco	Blues Entertainment Corp.	(033) 452-1299	david@blues.com	Working - Contacted	Purchased List
8	Eugena Luce	Pacific Retail Group	(781) 270-6500	eluce@pacificretail.com	Closed - Not Converted	Purchased List
9	Jack Rogers	Burlington Textiles Corp of Amer...	(336) 222-7000	jrogers@btca.com	Closed - Converted	Web
10	Jeff Glimpse	Jackson Controls	886-2-25474189	jeffg@jackson.com	New - Not Contacted	Phone Inquiry
11	Kathleen Courier	TAIR Corp.	(860) 773-0123	kcourier@tar.net	Working - Contacted	Purchased List

**Fig 5.9 List Views**

List View dropdown menu (1) Click to access your list views. Pin list icon (2) Click to pin a list view. A pinned list is the default list view for that object. A icon indicates a pinned list. To pin a different list, select a different list view and pin it instead. List View Controls menu (3) Click to access list view actions, including creating, renaming, cloning, and sharing them. You can also choose which fields to show in a list and editing filters that you've applied. Layouts icon (4) Click to toggle between displaying lists in the standard table view () or the Kanban view (). The icon changes to match the selected view. Kanban is a workflow visualization tool. We talk about Kanban in a bit. When working with task lists, you can also use split view () to see all of your tasks on the left side of the page, plus the details for a selected task on the right. Refresh icon (5) Click to get a fresh view of a list more quickly than doing a full page reload. Edit icon (6) Click to update fields in your list. You move to the first editable field in the list. Edited fields are highlighted in yellow to remind you to save your changes. Charts icon (7) Click to transform list data into simple and easy-to-understand pictures that show things like percentages, totals per account, ratio of dog lovers to cat owners, and other useful information. Filter icon (8) Click to narrow or expand the records that appear in a list view by adding, modifying, or removing filters.

## 5.10 The Kanban View

The Kanban view organizes a set of records into columns to track your work at a glance. To update a record's status, drag it into a different column. You can configure the board by selecting what fields, columns and summaries are based on. And, get personalized alerts on key opportunities in flight.

- Visualize your work at each stage or status
- Move records between columns using drag and drop functionality
- Configure columns and summary fields on the fly
- Edit or delete records to keep them up to date
- Quickly create filters to slice your data how you want
- For opportunities, get alerts to notify you when action is needed on a key deal

The screenshot shows a Kanban view for Opportunities in Salesforce. At the top, there's a dropdown menu labeled "All Opportunities" with a red box around it (labeled 1). Below it, a summary bar indicates "9 Items · Sorted by Amount · Updated a few seconds ago". The main area is divided into five columns: "Qualification (2)", "Needs Analysis (2)", "Proposal (2)", "Negotiation (1)", and "Closed Won (2)". Each column has a summary field at the top showing the total amount and count of opportunities. The "Qualification" column has a value of \$73,611. The "Needs Analysis" column has a value of \$118,504. The "Proposal" column has a value of \$625,000. The "Negotiation" column has a value of \$47,503 and contains a warning message: "No open activities. Take action to keep this deal moving." The "Closed Won" column has a value of \$397,002. Red numbers 2 through 9 are overlaid on various UI elements: 2 points to a record in the Negotiation column; 3 points to a record in the Closed Won column; 4 points to the search bar; 5 points to the "Needs Analysis" column header; 6 points to the "Proposal" column header; 7 points to the "Closed Won" column header; 8 points to a tooltip for a record in the Negotiation column; and 9 points to a red box highlighting the warning message in the Negotiation column.

**Fig 5.10 The Kanban View**

1. The records in the Kanban view are based on the selected list view.

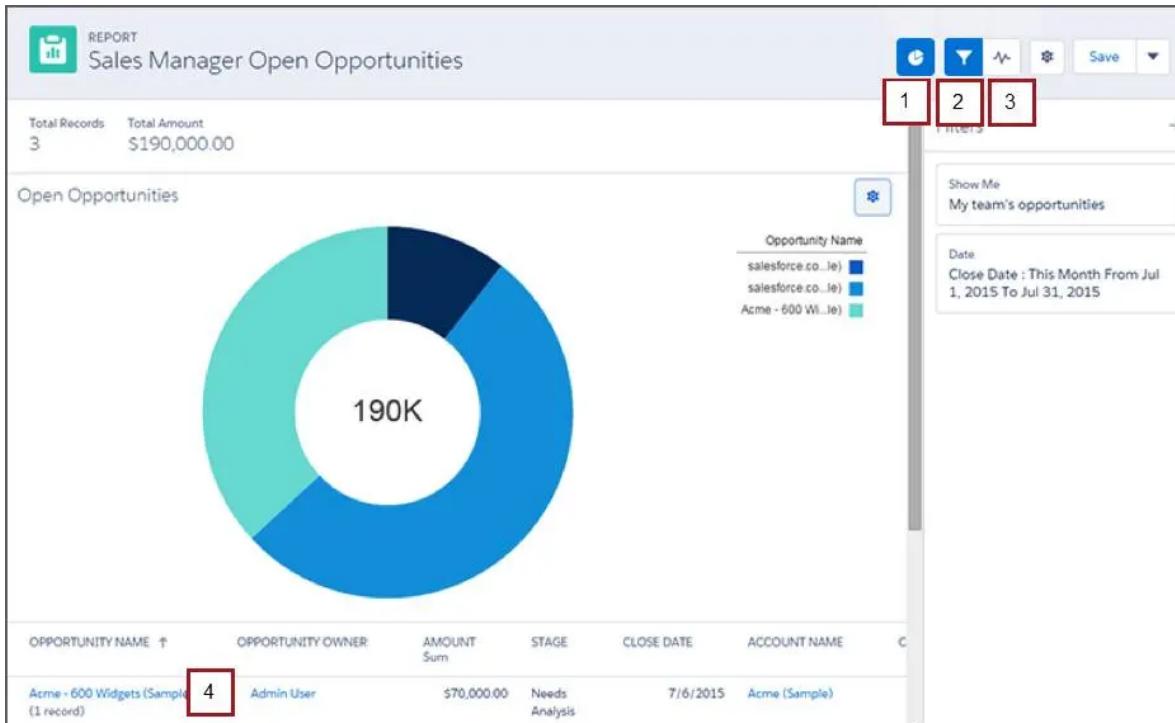
2. Easily toggle between the list view grid view and the Kanban view.
3. Filter your records to view a particular subset of your records.
4. Search for records within the current view.
5. Select which record type to view.
6. Columns are created based on the grouping field.
7. Change how columns are organized and summarized using Kanban settings.
8. Quickly move a record to a different column by dragging the card.
9. For opportunities, alerts tell how to keep a deal on track, for example, create a task or event.

## 5.11 Reports and Dashboards

Similar to list views, reports are a list of records that meet the criteria you define. But unlike list views, with reports you can apply more complex filtering logic, summarize and group your data, perform calculations, and create more sophisticated visualizations of your data using dashboards.

One feature you'll love is the ability to create your own filters on the fly. Dashboards created by your admin highlight the data you need in a flexible layout, with spanning columns so you can see more dashboard components (charts) in different sizes on a single dashboard.

- Create filters on the fly for reports.
- Make visually awesome dashboards using flexible layout and spanning columns
- Collaborate with others via feeds.



**Fig 5.11 Reports and Dashboards**

1. Report Charts: Create a quick visualization of your data on demand.
2. Filters: Add a filter on the fly to slice data as needed.
3. Feeds: Collaborate on report data.
4. Simple Layout: Add the columns you want to see and sort them as needed.

The preconfigured dashboards managed package provides ready-to-use dashboards and reports for executive sponsors, managers, and sales reps.

## Search for Records

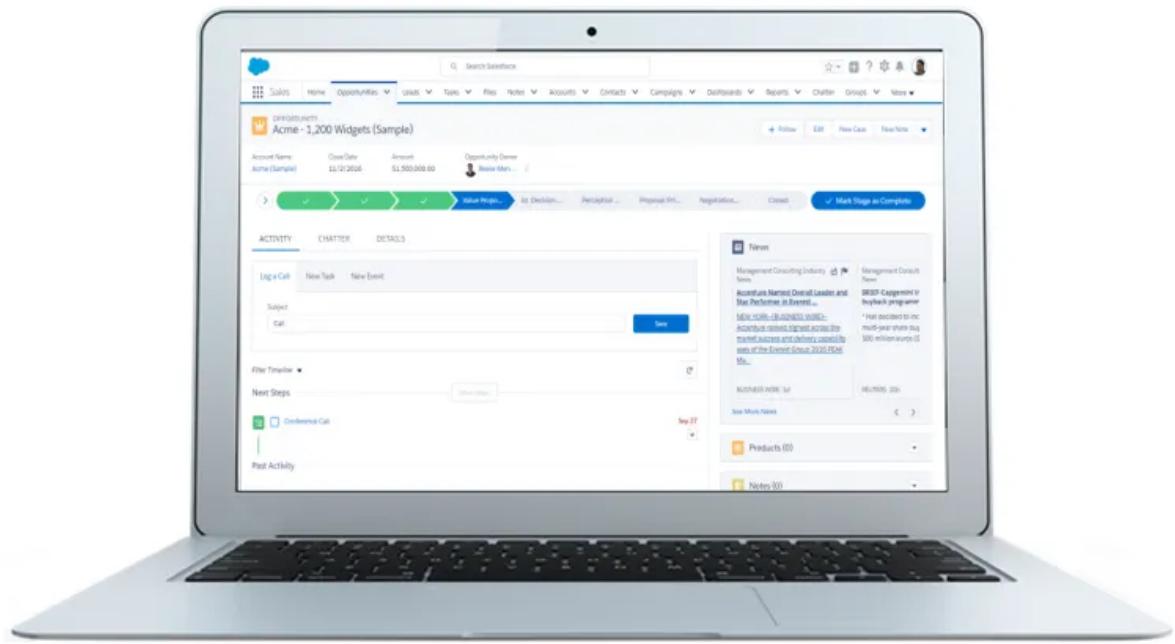
With all the useful data you have in Salesforce, search is the quickest way to find what you need, when you need it. In Lightning Experience, you can search from the top of every page.

## 5.12 What About Salesforce Classic?

We've focused on Lightning Experience because it's where all new Salesforce

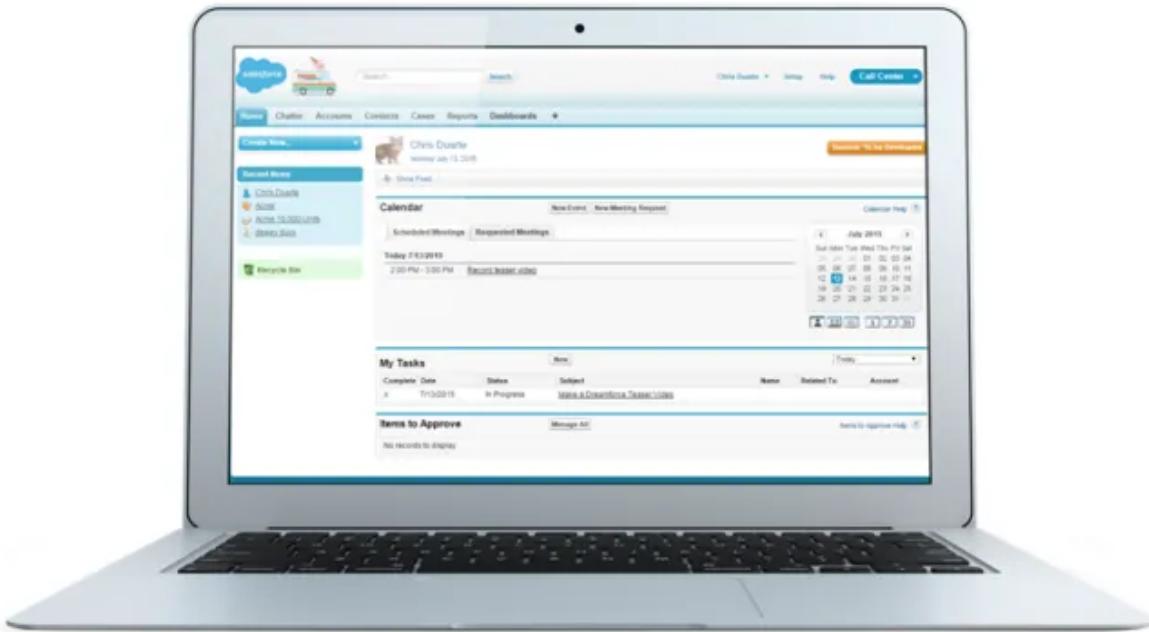
innovation happens. But Salesforce Classic is still available too.

On the surface, Salesforce Classic and Lightning Experience look somewhat similar, but as we'll see later on, looks can be deceiving.



**Fig 5.12 What About Salesforce Classic?**

Icons in the top-right means you're in Lightning Experience.



**Fig 5.12.1 What About Salesforce Classic?**

The app menu in the top-right means you're in Salesforce Classic.

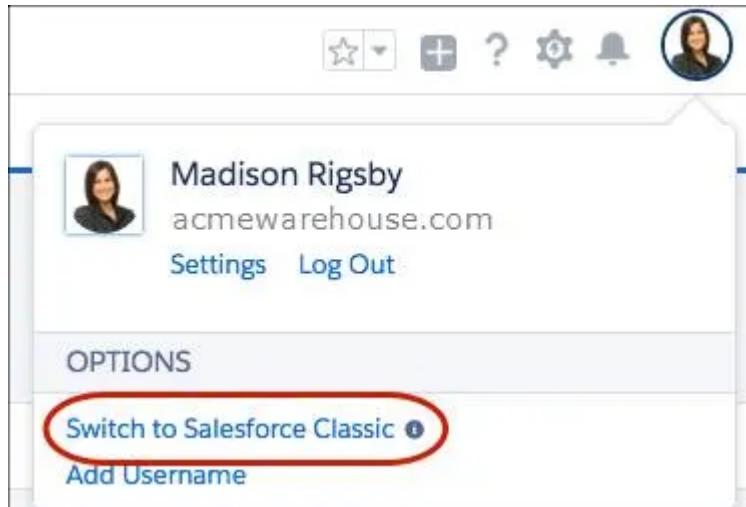
Many Lightning Experience enhancements aren't available in Salesforce Classic and a few features available in Salesforce Classic aren't yet supported in Lightning Experience. For this reason, you can move between Lightning Experience and Salesforce Classic as needed.

You might discover this on your own if you see something called the Switcher in Salesforce, so let's take a moment here to explain how this works

## 5.13 Meet the Switcher

Use the Switcher to move between Lightning Experience and Salesforce Classic. The Switcher is smart, as you're about to see. Anytime you switch, either to Lightning Experience or Salesforce Classic, it remembers that user experience as your new default preference.

So how do you get to the Switcher? Just click your photo in the upper right. Then you see the option to switch to Salesforce Classic.



**Fig 5.13 Meet the Switcher**

If you click it, remember that you're changing your default preference to Salesforce Classic.

When you're ready to come back to Lightning Experience, select your name in the upper right and click **Switch to Lightning Experience**.



**Fig 5.13.1 Meet the Switcher**

Don't forget that you're changing your default preference back to Lightning Experience. Welcome back!

## **Chapter – 6**

### **PROPOSED SYSTEM**

The app includes both a Project and a Timesheet object to enable you to track time. We also build a timekeeping ‘URL-driven’ report that summarizes time for any given project. We continue building our project management app and set it up for use (sharing settings, lightning app & navigation, URL-driven report configuration).

We cover:

- Reviewing the Sharing Settings
- Configuring Tabs to access the project and timesheet objects
- Creating the Lightning App and adding the navigation items
- Configuring the URL-driven timesheet report
- Test-driving our new app!

#### **6.1 EMPLOYEE INTERFACE**

In the Employee module they can view their own timing of their project on daily basis, see the start date and end date, time table, can view or download the Timesheet and see the remaining time of project and also there is an event calendars which shows upcoming task, deadline, other relevant information related to the project.

## **6.2 SALESFORCE REPORTING TOOLS**

There are several cloud-based Salesforce reporting tools available to businesses today, most of which integrate into the platform seamlessly to offer an extra layer of depth regarding insight and functionality. There are various internal add-ons, which are often quite basic and lack advanced analytics features and options. External tools, such as datapine, exist to take your Salesforce reporting efforts to an entirely new dimension, where you can, among other things, create powerful sales graphs and implement them in a complete dashboard overview. The tools we use for Salesforce are driven by our cutting-edge data dashboard technology, helping businesses across industries consolidate insights from a broader range of sources while drilling down even deeper into particular customer-facing aspects of the business. So, what Salesforce reporting tools do we use? Our Salesforce report templates are centralized, interactive, easy to use, and serve up KPI-driven insights that empower businesses to gain an all-important edge on the competition. Focusing on areas including sales activity, outbound calls, and inbound opportunity management, our specialized Salesforce dashboards will give you a panoramic view of your business—a level of vision that fosters innovation, evolution, progress, and growth. We'll look at some of these Salesforce report template examples in due course, but if you'd like to explore them for yourself, you can browse to the bottom of the article to find a list of interactive Salesforce reports templates.

## **6.3 Effective Salesforce Reporting Techniques**

The first of our Salesforce reporting tips comes in the form of defining your goals. This is the very foundation of crafting effective sales reports in Salesforce. Meeting with key stakeholders within your organization and setting your goals, aims, and targets collaboratively will help you paint a clear picture of how to shape your dashboard for data-driven success.

## **6.4 VALIDATIONS**

For each input submitted by the Employees , validation is needed to be performed. No false format of details can be submitted in the input section of different information. Validations with respect to the rules instructed by Client . The Login Id and password depends on which project he/she belongs to. So, the user is not permitted to access projects of different users.

# Chapter - 7 SNAPSHOT

## 7.1 HOME PAGE

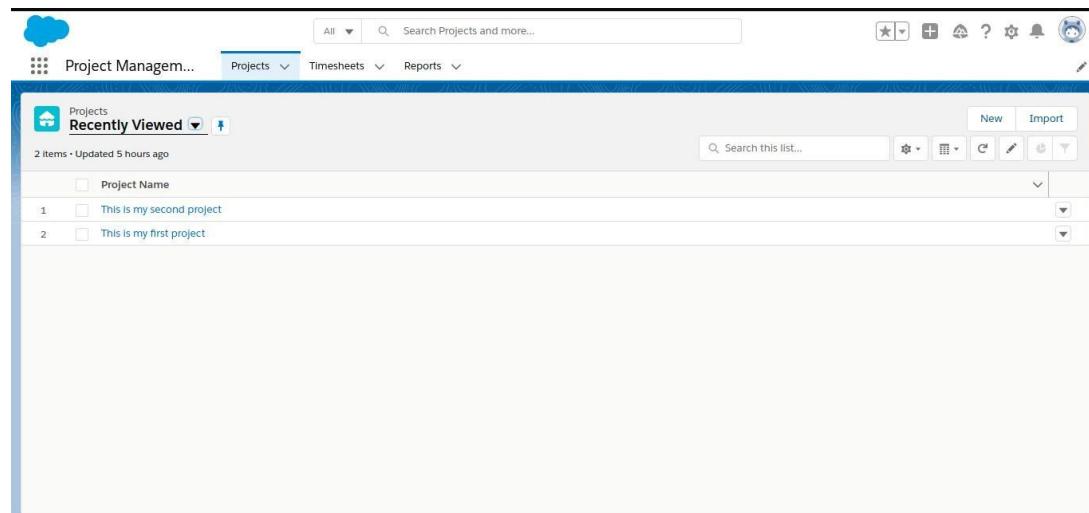


Fig. 7.1 List of Project Viewed

A screenshot of the same project management application, but this time focusing on a specific project named 'This is my first project'. The interface includes a header with 'Project Manager...', 'Search Projects and more...', and buttons for 'New Contact', 'Edit', and 'New Opportunity'. The main area has tabs for 'Related' and 'Details'. Under 'Details', there are fields for 'Project Name' (set to 'This is my first project'), 'Account Name' (set to 'Account Holder1'), 'Project Description' (set to 'This is the description'), 'Opportunity' (set to 'Opportunity18F'), 'Project Type' (set to 'Fixed Price'), 'Start Date' (set to '12/28/2020'), and 'End Date' (set to '1/29/2021'). Below these, there's a section for 'Hours' with a 'Total Hours' field set to '80.00'. To the right, there's a 'Activity' panel with sections for 'New Event', 'New Task', 'Log a Call', and 'Email', and a 'Upcoming &amp; Overdue' section indicating 'No next steps'.

Fig. 7.1.1 List of Project Viewed

In this home page we have three options: Projects, Timesheets and Reports. Each One has their own work.

In Projects we have a Project collection which we have worked on during our professional time.

In Timesheets we have to add time which we have working on projects. In the Report we can see all our information regarding our projects.

## 7.2 PROJECT DETAILS

The screenshot shows a Project Management application interface. At the top, there's a navigation bar with 'Project Management' and dropdown menus for 'Projects', 'Timesheets', and 'Reports'. A search bar says 'Search Projects and more...'. On the right, there are various icons for star, plus, document, question, gear, bell, and user. Below the header, a title bar says 'Project This is my first project' with buttons for 'New Contact', 'Edit', 'New Opportunity', and a dropdown.

The main area is divided into two sections: 'Details' on the left and 'Activity' on the right.

**Details Section:**

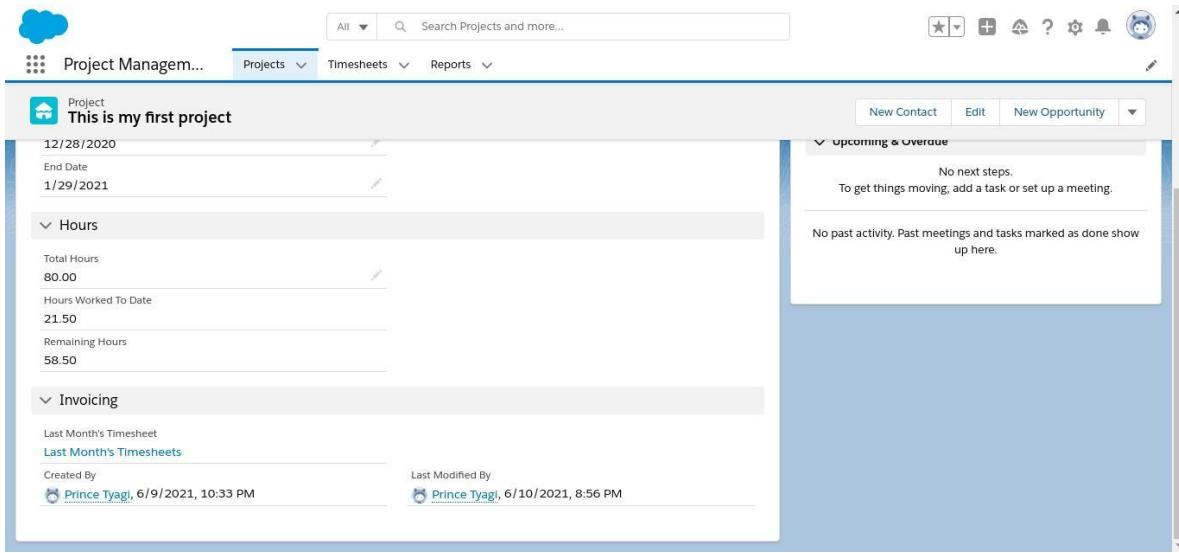
- Project Name: This is my first project
- Account Name: Account Holder1
- Project Description: This is the description
- Opportunity: Opportunity18F
- Details:**
  - Project Type: Fixed Price
  - Project Status: Ongoing
  - Start Date: 12/28/2020
  - End Date: 1/29/2021
- Hours:**
  - Total Hours: 00:00

**Activity Section:**

- Activity:** Buttons for 'New Event', 'New Task', 'Log a Call', and 'Email'. A text input field says 'Set up an event...' and a blue 'Add' button.
- Filters:** All time • All activities • All types. Buttons for 'Refresh', 'Expand All', and 'View All'.
- Upcoming & Overdue:** Text: 'No next steps. To get things moving, add a task or set up a meeting.'
- No past activity:** Text: 'No past activity. Past meetings and tasks marked as done show up here.'

**Fig. 7.2 Project Detail**

As we can see Fig. 7.2 We have information about projects like Project Name, Project Description, Project Type, Account Name, Opportunity, Project Status, Start Date, End Date.



**Fig. 7.2.1 Project Detail**

In the Hour Section we have to give Total hour, Hours Worked to Date and Remaining hours this is the most important information regarding any project for a developer

### 7.3 TIMESHEET PAGE

The screenshot shows a Project Management application interface. At the top, there's a navigation bar with a cloud icon, a search bar, and various project management icons. Below the navigation bar, the main content area has a header "Project Management...". Underneath, there are two main sections: "Timesheets" and "Activity".

**Timesheets Section:**

- Related:** Shows a list titled "Timesheets (2)".
- Details:** A table with columns: Task Date, Task Description, Total Hours, and Invoiced?. The data is as follows:

Task Date	Task Description	Total Hours	Invoiced?
12/18/2020	This is what I did	6.50	<input type="checkbox"/>
11/27/2020	This is what I did	15.00	<input type="checkbox"/>

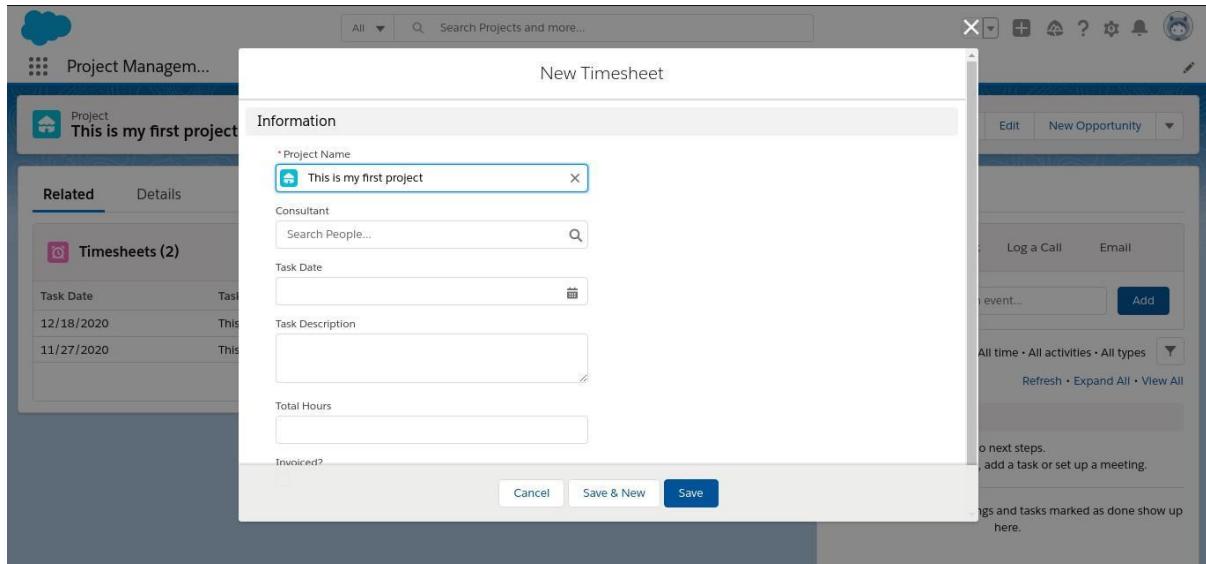
**Activity Section:**

- Activity:** A section with buttons for New Event, New Task, Log a Call, and Email.
- Upcoming & Overdue:** A section stating "No next steps. To get things moving, add a task or set up a meeting."
- Filters:** Options to filter by All time, All activities, and All types.
- Refresh:** Buttons for Refresh, Expand All, and View All.

Fig 7.3

In this section there are Task Date, Task Description, Total Hours and Invoice. We have to add this information when we work on a project so that we can see the final report.

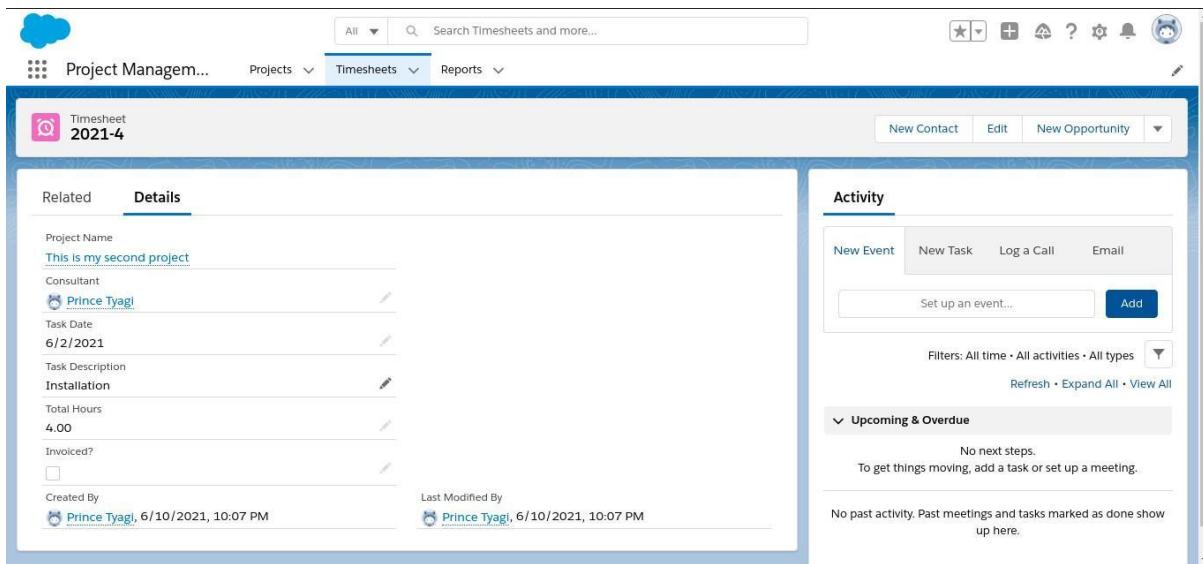
## 7.4 NEW TIMESHEET PAGE



**Fig 7.4**

In this section we have to add Project Name, Task Date, Task Description, Total Hours, Invoice so that we can see all information at the end of project completion.

## 7.5 TIMESHEET DETAILS

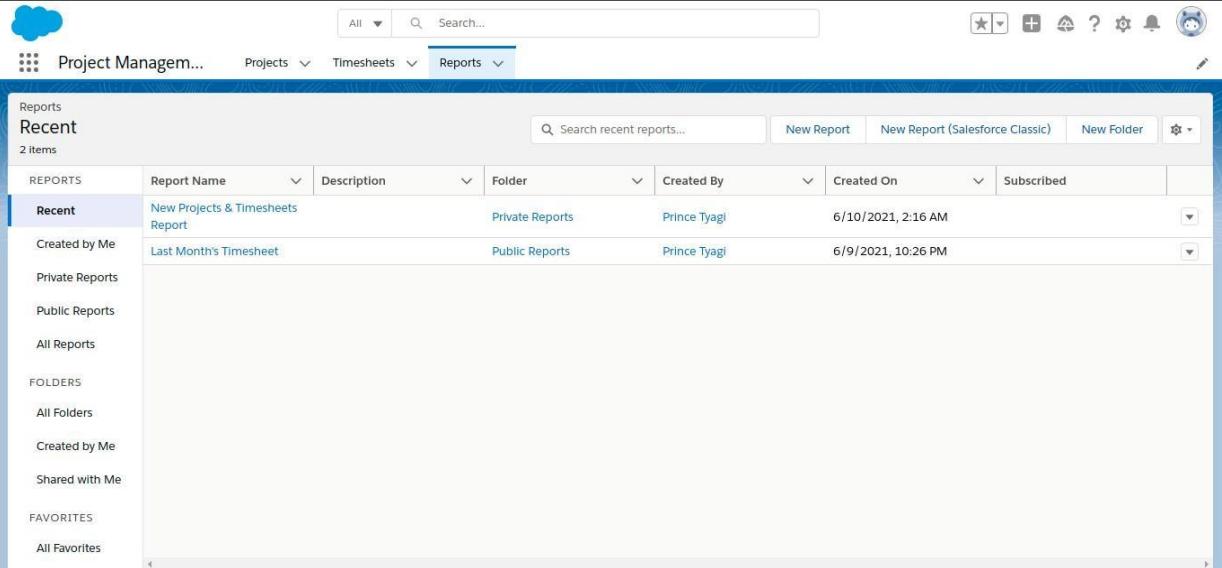


**Fig 7.5**

In this timesheet page you can see your time and project description. In the Related field you can enter details of your task just like Date, Description, Working Hours etc.

So that in the final report you can see all your details.

## 7.6 FINAL REPORT PAGE

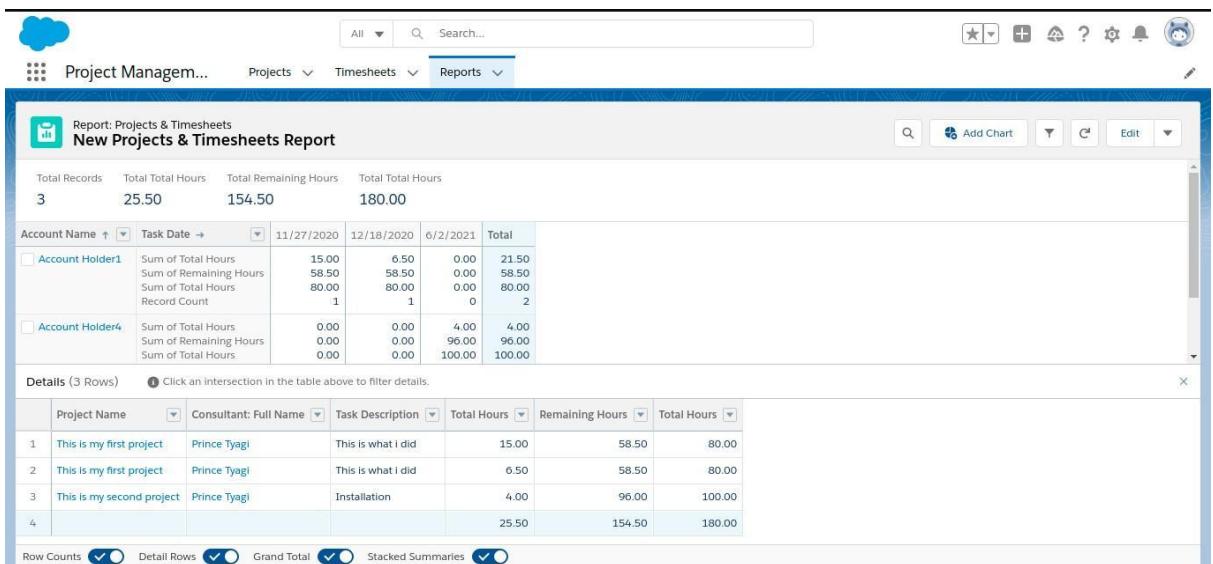


The screenshot shows the Project Management software interface. At the top, there is a navigation bar with icons for Home, All, Search, and various project management functions. Below the navigation bar, the main header reads "Project Managem..." and includes tabs for "Projects", "Timesheets", and "Reports". The "Reports" tab is currently selected. On the left side, there is a sidebar with categories: "Recent", "Reports" (with sub-options like "Recent", "Created by Me", "Private Reports", "Public Reports", and "All Reports"); "Folders" (with sub-options like "All Folders", "Created by Me", and "Shared with Me"); and "Favorites" (with sub-option "All Favorites"). The main content area displays a table titled "Recent" with two rows of data:

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	New Projects & Timesheets Report		Private Reports	Prince Tyagi	6/10/2021, 2:16 AM	
Created by Me	Last Month's Timesheet		Public Reports	Prince Tyagi	6/9/2021, 10:26 PM	

**Fig. 7.6 Final Report**

In this section we can see our final reports. There are many advantages to reports. We can see our report mid of the project as well as the end of the project.



**Fig. 7.6.1 Final Report**

In this figure we can see all the details of our project. This is the final report page as we see the first part of our image like Total Hours, Total Remaining Hours, Total final hours.

In the second part of this image we can see the Project Name, Consultant Full Name, Task Description, Total Hours, Remaining Hours, Total Hours and also on top of the second part we can see all details of our projects.

Most of the important parts of this report we can see are only relevant parts of our report. It depends on our requirement.

# **CHAPTER 8**

## **TESTING**

### **8.1 INTRODUCTION**

Testing is the integral part of any System Development Life Cycle. Insufficient and interesting applications tend to crash and result in loss of economic and manpower investment besides user's dissatisfaction and downfall of reputation.

"Software Testing can be looked upon as one among many processes an organization performs, and that provides the last opportunity to correct any flaws in the developed system. Software Testing includes selecting test data that have more probability of giving errors." The first step in System testing is to develop the plan for all aspects of system .Completeness, Correctness, Reliability and Maintainability.

Software is to be tested for the best quality assurance, an assurance that the system meets the specification and requirement for its intended use and performance.

System Testing is the most useful practical process of executing the program with the implicit intention of finding errors that makes the program fail.

Process of creating a program consists of the following phases:

1. defining a problem;
2. designing a program;
3. building a program;
4. analyzing performances of a program, and
5. final arranging of a product.

According to this classification, software testing is a component of the third phase, and means checking if a program for specified inputs gives correctly and expected results.

So the main aim of testing is to analyze the performance and to evaluate the errors that occur when the program is executed with different input sources and running in different operating environments.

There are many definitions of software testing, but one can shortly define that as: A process of executing a program with the goal of finding errors. So, testing means that one inspects behavior of a program on a finite set of test cases (a set of inputs, execution preconditions, and expected outcomes developed for a particular objective, such as to exercise a particular program path or to verify compliance with a specific requirement) for which valued inputs always exist.

In practice, the whole set of test cases is considered as infinite, therefore theoretically there are too many test cases even for the simplest programs. In this case, testing could require months and months to execute.

So, how to select the most proper set of test cases? In practice, various techniques are used for that, and some of them are correlated with risk analysis, while others with test engineering expertise.

Testing is an activity performed for evaluating software quality and for improving it. Hence, the goal of testing is systematic detection of different classes of errors (error can be defined as a human action that produces an incorrect result) in a minimum amount of time and with a minimum amount of effort.

Software testing is an important component of software quality assurance, and many software organizations are spending up to 40% of their resources on testing. For life critical software (e.g., flight control) testing can be highly expensive. Because of that, many studies about risk analysis have been made. This term means the probability that a software project will experience undesirable events, such as schedule delays, cost overruns, or outright cancellation.

## 8.2 Types of Testing

- Unit testing
- Validation testing
- Integration testing
- User acceptance testing

- Output testing
- Black box and white box testing

### **8.2.1 UNIT TESTING**

Unit testing is the approach of taking a small part of a testable application and executing it according to the requirements and testing the application behavior. Unit testing is used for detecting the defects that occur during execution .

When an algorithm is executed, the integrity should be maintained by the data structures. Unit testing is made use for testing the functionality of each algorithm during execution.

Unit testing can be used in the bottom up test approach which makes the integration test much easier. Unit testing reduces the ambiguity in the units.

Unit testing uses regression testing, which makes the execution simpler. Using regression testing, the fault can be easily identified and fixed.

In this project, the proposed system of hiding the data using different phases likes encryption, decryption, etc

So, for getting the correct output all the functions that are used are executed and tested at least once making sure that all the control paths, error handling and control structures are in proper manner.

Unit testing has its applications for extreme programming, testing unit frameworks and good support for language level unit testing.

### **8.2.2 VALIDATION TESTING**

Validation is the process of finding whether the product is built correctly or not. The software application or product that is designed should fulfill the requirements and reach the expectations set by the user.

Validation is done while developing or at the final stage of development process to determine whether it satisfies the specified requirements of users.

Using a validation test the developer can qualify the design, performance and its operations. Also the accuracy, repeatability, selectivity, Limit of detection and quantification can be specified using Validation testing.

### **8.2.3 OUTPUT TESTING**

After completion of validation testing the next process is output testing. Output testing is the process of testing the output generated by the application for the specified inputs.

This process checks whether the application is producing the required output as per the user's specification or not.

The output testing can be done by considering mainly by updating the test plans, the behavior of application with different types of inputs and with produced outputs, making the best use of the operating capacity and considering the recommendations for fixing the issues.

### **8.2.4 INTEGRATION TESTING**

Integration testing is an extension to unit testing, after unit testing the units are integrated with the logical program.

The integration testing is the process of examining the working behavior of the particular unit after embedding with a program. This procedure identifies the problems that occur during the combination of units.

The integration testing can be commonly done in three approaches:

- Top-down approach
- Bottom-up approach
- Umbrella approach

#### **Top-down approach:**

In the top-down approach the highest level module should be considered first and integrated. This approach makes the high level logic and data flow to test first and reduce the necessity of drivers.

One disadvantage with top-down approach is its poor support and functionality is limited, port and functionality is limited.

### **Bottom-up approach:**

Bottom-up approach is opposite to the top-down approach. In this approach, the lowest level units are considered and integrated first. Those units are known as utility units. The utility units are tested first so that the usage of stubs is reduced.

The disadvantage in this method is that it needs the respective drivers which make the test complicated, the support is poor and the functionality is limited.

### **Umbrella approach:**

The third approach is umbrella approach, which makes use of both the top - bottom and bottom - top approaches.

This method tests the integration of units along with its functional data and control paths. After using the top - bottom and bottom-top approaches, the outputs are integrated in top - bottom manner.

The advantage of this approach is that it provides good support for the release of limited functionality as well as minimizing the needs of drivers and hubs.

The main disadvantage is that it is less systematic than the other two approaches.

### **8.2.5 User Acceptance Testing**

User acceptance testing is the process of obtaining the confirmation

from the user that the system meets the set of specified requirements. It is the final stage of project; the user performs various tests during the design of the applications and makes further modifications according to the requirements to achieve the final result. The user acceptance testing gives the confidence to the clients about the performance of the system.

### **8.2.6 Black Box (Functional) Testing:**

Testing against specification of system or components. Study it by examining its inputs and related outputs. Key is to devise inputs that have a higher likelihood of causing outputs that reveal the presence of defects. Use experience and knowledge of the domain to identify such test cases. Failing this, a systematic approach may be necessary. Equivalence partitioning is where the input to a program falls into a number of classes, e.g. positive numbers vs. negative numbers. This type of test case design method focuses on the functional requirements of the software, ignoring the control structure of the program. Black box testing attempts to find errors in the following categories:

- Incorrect or missing functions.
- Interface errors.
- Errors in data structures or external database access.
- Performance errors.
- Initialization and termination errors.

### **8.2.7 White Box (Structural) Testing:**

Testing based on knowledge of structure of components (e.g. by looking at source code). Advantage is that structure of code can be used to find out how many test cases need to be performed. Knowledge of the algorithm (examination of the code) can be used to identify the equivalence partitions. Path testing is where the tester aims to exercise every independent execution path through the component. All conditional statements tested for both true and false cases. If a unit has no control statements, there will be up to  $2^n$  possible paths through it. Static tools may be used to make this easier in programs that have a complex branching structure. Tools support. Dynamic program analyzers instrument a program with additional code. Typically this will count how many times each statement is executed. At the end print out a report showing which statements have and have not been executed. Problems with flow graph derived testing:

- Data complexity could not be taken into account.
- We cannot test all paths in combination.
- It is really only possible at unit and module testing stages because beyond that complexity is too high.

### **8.2.8 Unit Testing:**

Unit testing concentrates on each unit of the software as implemented in the code. This is done to check syntax and logical errors in programs. At this stage, the test focuses on each module individually, assuring that it functions properly as a unit. In our case, we used extensive white-box testing at the unit testing stage.

A developer and his team typically do the unit testing; the unit testing is done in parallel with coding; it includes testing each function and procedure.

### **8.2.9 Incremental Integration Testing:**

Bottom up approach for testing i.e. continuous testing of an application as new functionality is added; Application functionality and modules should be independent

enough to test separately done by programmers or by testers.

### **8.2.10 Integration Testing:**

Testing of integration modules to verify combined functionality after integration .Modules are typically code modules, individual applications, client and server and distributed systems.

### **8.2.11 Functional Testing:**

This type of testing ignores the internal parts and focuses on whether the output is as per requirement or not .Black box type testing geared to functionality requirements of an application.

### **8.2.12 System Testing:**

Entire system is tested as per the requirements. Black box type test that is based on overall requirement specifications covers all combined parts of a system.

# CHAPTER 9

## CONCLUSION-

Salesforce does not have a Project planner specific feature available, there are many great out of the box features that can empower your organization to provide a successful project management experience for you and your client. With all of your team using Salesforce to track their interactions with your client you are providing a complete and comprehensive view of your client and their needs. Using the Account teams and tasks and notifications features, Salesforce can help keep team members aligned and efficient. The Chatter functionality assists with streamlined and productive team communication and collaboration. The customizable status fields that can be created and viewed in the Kanban view or dashboards, allow management to keep a close eye on the progress of the project and provide the ability to monitor and address any potential blockers that may arise, which helps ensure not only client satisfaction but a successful project outcome for all involved.

And finally, if these existing Salesforce features don't quite meet your needs and expectations, the opportunity is available to enhance your Salesforce project planner solution by browsing your options with an App from the App Exchange!

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