ONLINE BIKE BOOKING

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TITLE: ONLINE BIKE BOOKING

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CHAPTER 1

1.1 INTRODUCTION

The bike reservation system is online now by one click user can book the bike with in seconds . In olden days there were companies which are giving rent but now a days all are became online so this project helps to bike the room online.

Usually all the details of the person are entered in a book or a register and it needs a lot of manual work. It is difficult to find a bike which is required.

To reduce the manual work, a software will be implemented which becomes easy to find out the details of each and every car and the customer.

While registration, customer has to enter the details like name , age, address, license number etc.

After all this process the payment method will be appeared the payment should also be done in online for example the payment can done through paytm, google pay etc. After the payment the bike will be booked with the given details.

The main scope of this project is to transvers a lot of areas ranging from business concepts and required to perform various options to the customer it is helpful to the customers tasks whenever they to rent a bike this project is helpful for both customer and renter.

In this project there are so many benfits such as we mentioned them over here This online bike rental solution is fully functional and flexible. It is very easy to use. This online bike rental system helps in back office administration by streamlining and standardizing the process this project is eco friendly and is helpful for all people who wants to travel and this software doesn't have any time limit we can book an car any time and anywhere

For example we take our country India where most of the population belong to the middle class family. Most of them can't afford a bike. In this era, people have less time and more work that force them to travel different places to work, business meeting and tourism so for that we found an solution as bike rentals through online where every one is comfortable for booking their own vechile to travel all over the country and this software 24 hours working for this we all decide to delvop this software

1.1.1 ADVANTAGES OF CAR RESERVATION:

1. Quick and easy access to customer for booking a bike.
2. Money can be paid online.
3. Will be helpful in emergency cases.
4. Cancelation is easy to customer.
5. Secure.
6. setup an price from anywhere
7. Discount rates.
8. Easy usage to the customer.
9. Customer can save their time.

1.2.OBJECTIVES:

1. To increase direct bookings of bikes.
2. To offer easy, simple and quick booking experience to the customers.
3. To offer maximum and secure payment options so that every customer can pay as per his preferred choice
4. A booking engine with minimum dropout rates.
5. To offer accountable customer support that addresses all concerns as quickly as possible with 24x7x365 availability.
6. To offer a responsive booking engine that offers a great booking experience across all the devices.
7. To create an system which reduces the paper work for the owner and the customer
8. To create an system which is helpful for rentors to register and rent the bikes through the online which is easy.
9. To establish an system which is helpful to the customer and consumes an less time.

1.3 METHODOLOGY TO FOLLOWED

In this project we use OOP's with java concepts as a main topic to determine waiting time of customer in a queue using token number.

In this project first we need to create a class or oops concepts for car reservation application. First, we need to enter our details and we should select type of payment in which customer it's a customer choice.

Using oops with java concept in this project we can able to get the required bike for booking .

1.4. EXPECTED OUTCOMES:

We run the project as java application.

1. Details of the customer
2. Age should be above 18.
3. Selecting the bike.
4. Specifying the number of days
5. Calculating the amount
6. Paying the amount
7. Enter your OTP
8. OTP is verified
9. Congratulations u have booked your bike.

You are successfully reserved your bikes.

1.5. HARDWARE AND SOFTWARE REQUIREMENTS

1.5.1 HARDWARE REQUIREMENTS:

- Processor: Inte1 core i3/i4/i5/i6/i7
- Speed:3.20 GHz to 3.60 GHz
- RAM:512 MB RAM or more.
- ROM:2 GB DDR3

1.5.3 SOFTWARE REQUIREMENTS:

- Jdk installer by Oracle.
- Eclipse IDE for Enterprise java Developers.
- Windows XP/Windows 7/Windows 8/Windows 10.

1.5.3.1 Eclipse IDE.

Eclipse is an integrated development environment (IDE) used in computer programming.[6] It contains a base workspace and an extensible plug-in system for customizing the environment. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages via plug-ins, including Ada, ABAP, C, C++, C#, Clojure, COBOL, D, Erlang, Fortran, Groovy, Haskell, JavaScript, Julia,[7]Lasso, Lua, NATURAL, Perl, PHP, Prolog, Python, R, Ruby (including Ruby on Rails framework), Rust, Scala, and Scheme. It can also be used to develop documents with LaTeX (via a TeXlipse plug-in) and packages for the software Mathematica. Development environments include the Eclipse Java development tools (JDT) for Java and Scala, Eclipse CDT for C/C++, and Eclipse PDT for PHP, among others.

CHAPTER 2

OBJECT ORIENTED CONCEPTS

Introduction:

Object-oriented programming System(OOPs) is a programming paradigm based a n theconcept of “objects” that contain data and methods. The pr› mary purpose of object-oriented programming is to increase the flexibility and maintainability of programs. Object orientedprograms›ngbringstogetherdataandItsbehaviour (methods) in a singlelocatio n(object) makesit easier to understand how a program works.

2.1. CLASS

A class is a user defined blueprint or prototype from which objects are created. It represents the set of properties or methods that are common to all objects of one type. In general, class declarations can include these components, in order:

Modifiers : A class can be public or has default access.

Class name: The name should begin with an initial letter (capitalized by convention).

Superclass: The name of the class’s parent (superclass), if any, preceded by the keyword extends. A class can only extend (subclass) one parent.

Body: The class body surrounded by braces, { }.

Example:

```
class AM
{
 System.out.print.ln(“hello world”);
}
```

2.1.1 CONSTRUCTORS:

Constructors are used for initializing new objects. Fields are variables that provides the state of the class and its objects, and methods are used to implement the behavior of the class and its objects.

There are various types of classes that are used in real time applications such as nested classes, anonymous classes, lambda expressions.

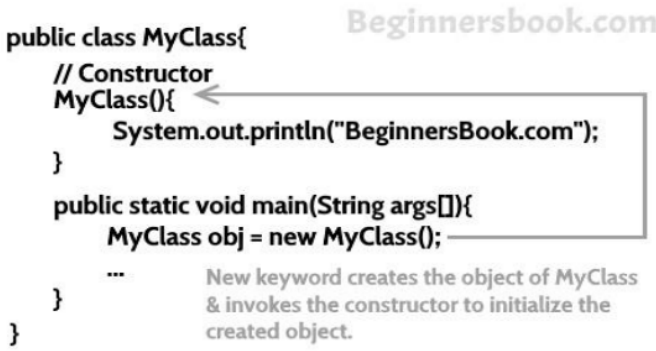


Figure:2.1.

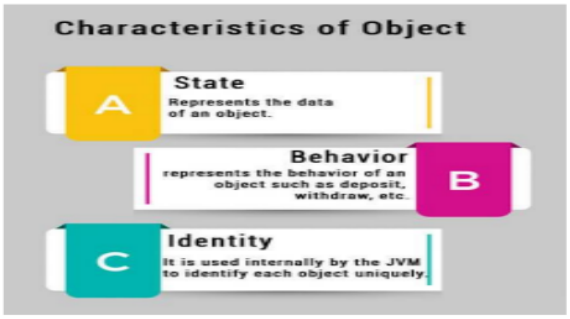
2.2 OBJECTS:

An entity that has state and behavior is known as an object e.g., chair, bike, marker, pen, table, car, etc. It can be physical or logical (tangible and intangible). The example of an intangible object is the banking system.

An object has three characteristics:

- **State:** represents the data (value) of an object.

- **Behavior:** represents the behavior (functionality) of an object such as deposit, withdraw, etc.
- **Identity:** An object identity is typically implemented via a unique ID. The value of the ID is not visible to the external user. However, it is used internally by the JVM to identify each object uniquely.



Example:

```
public class P
{
public static void main(String [] arg)
{

h ob=new h();
ob.m();
obj.random();      (This how we create an object)
}

}
```

2.3 INHERITANCE:

Inheritance in Java is a mechanism in which one object acquires all the properties and behaviors of a parent object. ... The idea behind inheritance in Java is that you can create new classes that are built upon existing classes. When you inherit from an existing class, you can reuse methods and fields of the parent class.

Example:

```
class h extends q
{



    void m()
    {
    int f,x,r;
    //System.out.println("ENTER MAXIMUM NUMBER OF CARS TO BE BOOKED\n");
    //Scanner ch=new Scanner(System.in);
    //System.out.println("ENTER MAXIMUM NUMBER OF CARS TO BE BOOKED\n");
    // r=ch.nextInt();
```

In the above we used extends because to enable the inheritance we need to extends keyword

2.4 JAVA BUZZWORDS

• Simple

Java is anything but difficult to learn and its language structure is very straightforward, perfect and straightforward. The confounding and uncertain ideas of C++ are either forgotten in Java or they have been re-executed in a cleaner way.

Using eval tool, we can evaluate any type of SQL query and display the result on console Sqoop eval tool can be applicable for both modeling and defining the SQL statements. That means, we can use eval for insert statements too. If the command executes successfully.

• Object Arranged

In java everything is Item which has a few information and conduct. Java can be effectively stretched out as it depends on Article Model. Object-arranged programming (Uh oh) is an approach that disentangles programming improvement and support by giving a few tenets.

• Robust

Java attempts to wipe out mistake inclined codes by underscoring principally on aggregate time blunder checking and runtime checking. However, the primary territories which Java improved were Memory The executives and misused Special cases by presenting programmed City worker and Exemption Dealing with.

Approach that disentangles programming improvement and support by giving a few tenets.

Platform Free

On assemblage Java program is accumulated into byte code. This byte code is stage autonomous and can be kept running on

any machine, in addition to this byte code group likewise give security. Any machine with Java Runtime Condition can run Java Projects.

• **Secure**

Java secure highlights it empower us to create infection free, temper free framework. Java program dependably keeps running in Java runtime condition with practically invalid cooperation with framework OS, thus it is progressively secure.

• Architectural Impartial

Compiler produces bytecodes, which have nothing to do with specific PC design; henceforth a Java program is anything but difficult to decipher on any machine.

•Linked-Rundown

A connected rundown is a straight information structure where every component is a different item. Connected rundown components are not put away at adjacent area; the components are connected utilizing pointers. Every hub of a rundown is comprised of two things - the information and a reference to the following hub. The last hub has a reference to invalid.

2.5. POLYMORPHISM

Polymorphism refers to the ability of OOPs programming languages to differentiate between entities with the same name efficiently. This is done by Java with the help of the signature and declaration of these entities.

For example!

```
// Java program to demonstrate Polymorphism

// This class will contain
```

```
//3 methodsvGthsamename,
// yet the program will
//compile &run successfully public
class Sum (


  // Overloaded sum().
  //Thissum takestwoint parameters public
  int sum(int x, int y)


    return (x + y);



  // Overloaded sum().
  //Thissum takesthree int parameters public
  int sum(Int x, Int y, Int z)


    return (x + y + z);



  // Overloaded sum().
  // This sum takes two double parameters public
  doublesum(doublex, doubley)


    return (x + y);



  // Driver code
```

```
public static void main(String args[]) Sum s=
  new Sum();
                System.out.println(s.sum(10, 22));
                System.out.prTntl n(s.sum(20, 20, 30));
                System.out.println(s.sum(10, 20.5));
```

Ouput:

32

70

30.5

Polymorphism in Java are main!y of 2 types:

2.6. EXCEPTION HANDLING:

An exception is an unwanted o unexpected event, which occurs during the execution of a program i.e at run time, that disrupts the normal flow of the program's instructions. Exception Hierarchy ! All exception and errors types are sub classes of class Throwable, which is case class of hierarchy. One branch is headed by Exception . This class is used for exceptional conditions that user programs should catch. NullPointer Exception is an example of such an exception .Another branch, Error are used by the Java run-time system(JVM) to indicate errors having to do with the run-time envi^onment itself(JRE). Stack OverflowErro^ is an example of such an error.

2.7 MU LTITHREADING:

Java is a multi-threaded programming language which means we can develop multi-threaded program using Java. A multi-threaded program contains two or more parts that can run concurrently and each part can handle a different task at the same time making optimal use of the available resources specially when your computer has mu tiple CPUs. By definition, multitasking is when multiple processes share common processing resou^ces such as a CPU. Multi-threading extends the idea of mulTTaskTng into applTcatTons where you can subdivide specTfTc operations within a single applTcatTon into Tndiv!dual threads. Each of the threads can run !n parallel. The OS

2.8 JAVA PACKAGE:

A java package is a group of similar types of classes, interfaces and sub-packages. Package in java can be categorized in two form, built-in package and user-defined package. There are many built-in packages such as java, lang, awt, javax, swing, net, io, u sq etc. Here, we will have the detailed learning of creating and using user-defined packages.

Advantage of Java Package

1) Java package is used to categorize the classes and interfaces so that they can be easily maintained.
2) Java package p rovides access protection.
3) Java package removes naming col ision.

package in java

Simple example of java package

The package keyword is used to create a package in java.

```
//save as Simple.java package
mypack; public class Simple(
 public static void main(String args[])(
   System.out. printIn("Welcome to my package");
```

How to compile java package

If you a^e not using any IDE, you need to follow the syntax given below:

javac -d directory javafilename For example

javac -d . Simple.java

The -d switch specifies the destination where to put tne generated class file. You can use any di ectory name like /home (in case of Linux), d:/abc (in case of windows) etc. If you want to keep the package within the same directory, you can use . (dot).

How to run java package program

You need to use fully qualified name e.g. my pack.Simple etc to run the class.

To Compile: javac —d . Simple.java To Run: java mypack.Simple

Output:Welcome to my package

CHAPTER 3

DESIGN

3.1. ALOGARITHM:

1. First user need to create an class by using objected oriented concepts.
2. Classes can consist any topics which were related to object oriented concepts And object should be created for calling the class.
3. First customer should enter his name and hen customer need to enter his age for this user is using java in built functions like java.util
4. Here user uses if else statements to check the customer age if customer age is equal to 18 or greater than 18 then customer can be accesed to book his car
5. If customer is less than 18 then customer is not able to continue further process
6. After checking customer age then customer has to enter their Aadhaar number And then their license number
7. After that customer has to select the car according to their price for the user uses the do while loop for selections
8. And switch case is also used for the car selection process
9. After selecting the car payment options will displayed by using print statemens and if else statements are for payments
10. There will be five payments options will be displayed on the screen we select and customer should complete their payment
11. After completion of payment OTP will generated customer need to enter the OTP if OTP is verified then booking will be completed

CHAPTER 4

IMPLEMENTATION:

4.1 MODULE 1 FUNCTIONALITY:

```
public class  Roy {


        void out()

                {


                        float lic;

                        Scanner Sc = new Scanner(System.in);

                        System.out.println("Enter your name");
```

1. Creating a class named as roy
2. And asking customer their enter their name

4.2 MODULE 2 FUNCTIONALITY:

```
1
Public   class P
{
public static void main(String [] arg)
{

h ob=new h();
ob.m();
//        obj.random();
}
```

1. In this module we create object to acces the class
2. In this we use public static void because it is main class

4.3 MODULE 3 FUNCTIONALITY:

```
 import java.util.Scanner;
//import java.math.*;
class q
 {
int m,n;
        int r;
//        int m,n=54321;
        Object math;
```

```
        void push()

        {

        int a,y,c=0,l=0;

class h extends q

{



        void m()

        {

        int f,x,r;

        //System.out.println("ENTER MAXIMUM NUMBER OF CARS TO BE BOOKED\n");

        //Scanner ch=new Scanner(System.in);

        //System.out.println("ENTER MAXIMUM NUMBER OF CARS TO BE BOOKED\n");

        // r=ch.nextInt();
```

1. In this module we use java in built functions such as java util scanner
2. And scanner function is used for user input
3. And inhertance topic is also used here

4.4 MODULE 4 FUNCTIONALITY:

```
if(top>r)
        {
        System.out.println("MAX NO OF CARS REACHED\n");
        }
        else
        {
          Scanner o=new Scanner(System.in);
        System.out.println("PAYMENT OPTION\n");
        System.out.println("1.GOOGLE PAY\n2.PHONE PAY\n3.paytm\n");
```

1. In this module we uses if else statement for payemts
2. And we use system.out.println command to print the statements

4.5 MODULE 5 FUNCTIONALITY:

```
  do
        {
        //System.out.println("1.yulu cycle\n 2.yulu bike\n");
        //System.out.println("GENERATE OTP FOR\n");
        Scanner t=new Scanner(System.in);
        System.out.println("1.SWIFT\n 2.INNOVA\n 3.SCORPIO\n 4.BOLLERO\n 5.AMAZE\n");

        System.out.println("ENTER CAR TO BE BOOKED\n");

        //System.out.println("GENERATE OTP FOR\n");
```

```
 f=t.nextInt();
switch(f)
{
case 1:push();

     break;
case 2:
          push();
          break;
case 3:
          push();
          break;
case 4:
          push();
          break;
case 5:
          push();
          break;

default:System.out.println("wrong");
}
Scanner y=new Scanner(System.in);
System.out.println("\ndo u want to continue press 4\n");
 x=y.nextInt();
}while(x==4);
}
```

```
}
```

1. In this case we use do while loop for the selection of the cars
2. And switch cases are used for car selection

4.6 MODULE 6 FUNCTIONALITY:

```
while(ii==1)
        {
        n=12456;m=(int)(n*Math.random()+12*Math.random());
    y=m;n+=123;
        System.out.println("YOUR OTP IS :"+y);
        top++;
        Scanner ch=new Scanner(System.in);
        System.out.println("\n enter ur OTP\n");
        int d=ch.nextInt();
        if(y==d)
        {
        System.out.println("\t\t**************************\n");
        System.out.println("\t\tYOU SUCCESSFULLY BOOKED CAR\n");
        System.out.println("\t\t**************************\n");
        ii=0;
      break;
   continue;
```

1. In this case we use while loop to generating OTP
2. And this case we use random variable to generate different OTP
3. And we use if else statement to verify OTP if entered is right or wrong if it is right then booking will be completed

CHAPTER 5 :

RESULTS

Fig 5.1 figure 5.1 shows us the list of cars and we should enter the car which has to be booked

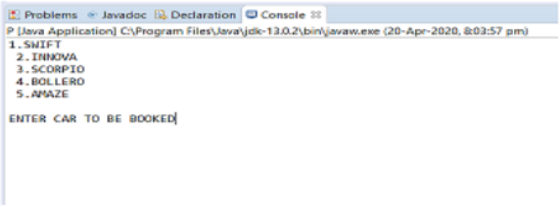
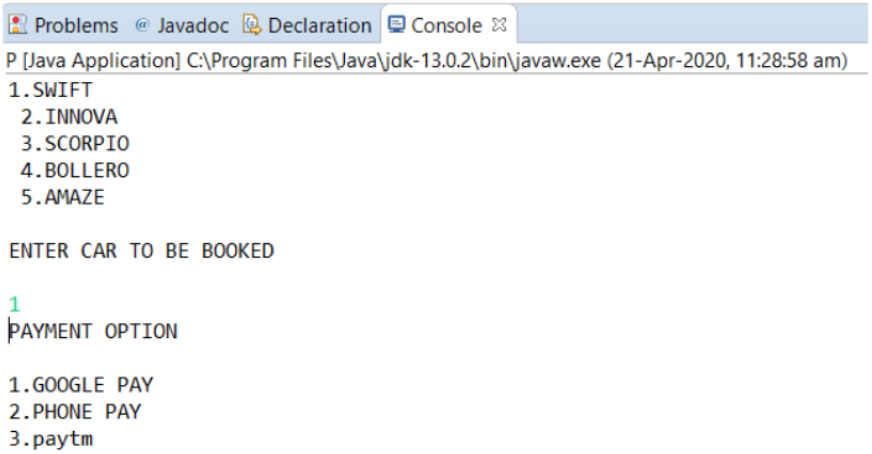


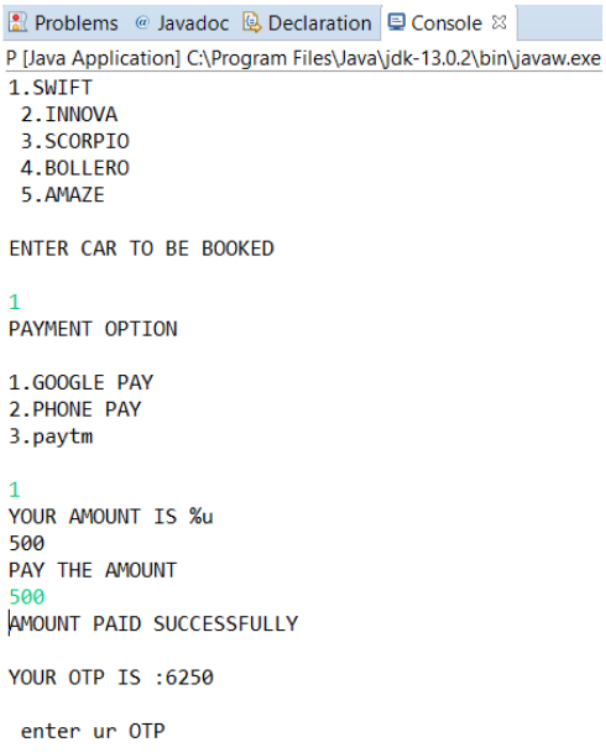
Fig 5.2



In fig.5.2 after entering the car to be booked we will enter into payment process

3 payment options are provided.

Fig 5.3



In fig5.3 after choosing the payment option.

We have to enter the amount to be paid. After paying the amount you should enter the otp which has displayed on the screen.

Fig 5.4

```
PAYMENT OPTION

1.GOOGLE PAY
2.PHONE PAY
3.paytm

1
YOUR AMOUNT IS %u
500
PAY THE AMOUNT
500
AMOUNT PAID SUCCESSFULLY

YOUR OTP IS :6250

 enter ur OTP

6240
WRONG OTP !!!!!!!!!!.....
 PLEASE RE ENTER THE NEW OTP

YOUR OTP IS :8068

 enter ur OTP
```

In fig5.4 we can see that after entering wrong otp .

It shows WRONG OTP!!!

Then a new otp will be generated ..

Fig 5.5

```
YOUR OTP IS :8068

 enter ur OTP

8068
                ***************************

                YOU SUCCESSFULLY BOOKED CAR

                ***************************


do u want to continue press 4
```

In fig5.5 After entering correct otp. Car is successfully booked

And for booking car again we have to enter 4.

Fig 5.6

```
ENTER CAR TO BE BOOKED

2
PAYMENT OPTION

1.GOOGLE PAY
2.PHONE PAY
3.paytm

2
YOUR AMOUNT IS %u
500
PAY THE AMOUNT
521
AMOUNT NOT PAID

PAY THE NEW CORRECT AMOUNT

YOUR AMOUNT IS %u
500
PAY THE AMOUNT
```

In fig 5.6 If we enter the wromg amount.

Amount will not be paid and displays to pay the new correct amount.

CHAPTER 6 :

CONCLUSION

Bike rentals is one of the basic java application in java created using different OOPS concepts available.

bike rentals has the basic options that is needed

1. Customer details
2. Customers age
3. No of days they want to book
4. Type of car and its requriments and customers payment method

This project is done successfully and also executed successfully without any errors

In this project first customer has to enter their name and their age if their age is above o equal to 18 the they allowed for futhur process and they can book the bike after that the customer needs to select the car and how many days they want to take rent after selecting the car then car price will be displayed on the screen and the payment options will be displayed and customer needs to select the option like googlepay phonepe etc And after completion of payment OTP will be displayed and the customer need to enter the OTP then booking will complete

Chapter 7

REFERENCES

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2. Head First Java: A Brain-Friendly Guide, 2nd Edition - Kathy Sierra, Bert Bates(2003)
3. PROGRAMMING WITH JAVA- PRIMER A
4. https://www.w3schools.com/java/java_oop.asp
5. https://www.javatpoint.com/java-tutorial

These are the books and the online links that I have referred to complete my mini project.

ONLINE BIKE BOOKING

ORIGINALITY REPORT

6%	%	6%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Vaskaran Sarcar. "Interactive Object Oriented Programming in Java", Springer Science and Business Media LLC, 2016 Publication	1%
2	György Kovács, Zoltán Varga, Márk Mihalik. "Chapter 35 Optimal Formation of Logistics Networks", Springer Science and Business Media LLC, 2017 Publication	1%
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GENERAL COMMENTS

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