

SAVITRIBAI PHULE PUNE UNIVERSITY

A mini project on

VASUNDHARA(THE TRAVEL MANAGEMENT SYSTEM)

Third Year Engineering

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CERTIFICATE

This is to certify that,
Mr. Rameshwar Gosavi (331) and Ms. Nikita Rasal (363) of class **T.E Computer**; have successfully completed their mini project work on “**Vasundhara (Travel Management System)**” at **SVPM’s College of Engineering, Malegaon(Bk.)** in the partial fulfillment of the Graduate Degree course in **T.E** at the department of **Computer Engineering** in the academic Year 2022-2023 Semester-V as prescribed by the Savitribai Phule Pune University.

Prof. V. D. Mhaske
(Project Guide)

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Rasal Nikita

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ABSTRACT

The main objective of the Tourism Management System is to manage the details of Customer, Hotel Booking, Cancellation and Tourism places. It manages all the information about Users, Hotel, Packages etc. The project is totally built at administrative end and thus only the administrator is guaranteed the access to the backend database. The purpose of this project is to build an application program to reduce the manual work for managing Tourists, Booking, Places etThrough this system, the propose system is highly automated and makes the travelling activities much easier and flexible. The user can get the very right information at the very right time. This system will include all the necessary fields which are required during online reservation time. This system will be easy to use and can be used by any person. The basic idea behind this project is to save data in a central database which can be accessed by any authorize person to get information and saves time and burden which are being faced by their customers.

This application will help in accessing the information related to the travel to the particular destination with great ease. The users can track the information related to their tours with great ease through this application. The travel agency information can also be obtained through this application.

Chapter 1

INTRODUCTION:

Database is a collection of related data and data is collection of facts and figure that can be procedure information. Mostly data represents recordable facts. Data aids in producing information, which is based on facts. For example, if we have data about marks obtained by all students, we can then conclude about toppers and average marks. A Database management system stores data in such a way that it becomes easier to retrieve, manipulate, and produce information.

Characteristics of Database Management System:

Traditionally, data was organized in file formats. DBMS was a new concept then, and all the research was done to make it overcome the deficiencies in traditional style of data management.

A modern DBMS has the following characteristics,

- Real-world entity
- Relation-based tables
- Isolation of data and application
- Less redundancy
- Consistency
- Query language
- ACID Properties
- Multiple views
- Multi users and concurrent access
- Security

Advantages and Disadvantages of DBMS: Advantages:

- Reduction of Redundancy: This is perhaps the most significant advantage of using DBMS. Redundancy creates several problems like, requiring extra storage space, entering same data more than once during data insertion, and deleting data from more than one place during deletion.
- Sharing of Data: In paper-based record keeping, data cannot be shared among many users. But in DBMS, many users can share the same database if they are connected via network.

Features:

- Minimum Duplication and Redundancy.
- Saves Storage Space and Cost.
- Large Database Maintenance.
- Provides High Level of Security.
- Permanent Storage of Data.

1.1 MOTIVATION:

We have decided to use SQL languages in our project because:

SQL is widely popular because it offers the following advantages:

- Allows user to access data in the RDBMS.
- Allows the user to describe the data.
- Allows user to create and drop database and table.
- Allows user to set permission on table, procedures and views.
- Allows user to create view, stored procedure, function in a database. Allows user to define data in a database and manipulate that data.
- Allows to embed within other language using SQL modules, libraries and pre- compilers

1.2 PROBLEM STATEMENT:

Let's Start with the reason on why we have worked this project out. Honestly its more of story somewhere in the last six months I had planned a trip with my friends . We had decided to go but at the last moment everyone bailed out and just like that the plan was cancelled. I could go on my own since I did not know the place at all. I needed help to plan my trip , this is where the Idea of our mini project came from.

Everyone deserves a good break once in their busy and hectic schedule. Our application helps the customer in enjoying their much needed break from regular life. But planning a trip can be difficult and confusing. Clients often waste time searching reliable sources and then finding the hotels, food costs, places and booking. The time is wasted in which they can travel rather than worrying about managements.

Here comes our application which helps Tourists to register by providing personal details, make new reservation and book hotel and package and can make cancellation.

Vasundhara helps every person plan their trip according to their preferences and a lifetime memorable experience.

Chapter 2 - LITERATURE VIEW

Introduction:

Java is a programming language created by James Gosling from Sun Microsystems (Sun) in 1991. The target of Java is to write a program once and then run this program on multiple operating systems. The first publicly available version of Java (Java 1.0) was released in 1995. Sun Microsystems was acquired by the Oracle Corporation in 2010. Oracle has now the steering ship for Java. In 2006 Sun started to make Java available under the GNU General Public License (GPL). Oracle continues this project called OpenJDK. Over time new enhanced versions of Java have been released. The current version of Java is Java 1.8 which is also known as Java 8. Java is defined by a specification and consists of a programming language, a compiler, core libraries and a runtime (Java virtual machine). The Java runtime allows software developers to write program code in other languages than the Java programming language which still runs on the Java virtual machine. The Java platform is usually associated with the Java virtual machine and the Java core libraries.

MAIN FEATURES OF JAVA: Java is a platform independent language. Compiler (java) converts source code (.java file) to the byte code (.class file). As mentioned above, JVM executes the bytecode produced by compiler. This byte code can run on any platform such as Windows, Linux, Mac OS etc. Which means a program that is compiled on windows can run on Linux and vice-versa. Each operating system has different JVM, however the output they produce after execution of bytecode is same. TOURISM MANAGEMENT SYSTEM 2020-21 page 7 across all operating systems. That is why we call java as platform independent language. Java is an Object-Oriented language. Object oriented programming is a way of organizing programs as collection of objects, each of which represents an instance of a class.

4 main concepts of Object-Oriented programming are:

1. Abstraction
2. Encapsulation
3. Inheritance
4. Polymorphism

Similarly we can see that, IDE is a free, open source, integrated development environment (IDE) that enables you to develop desktop, mobile and web applications. The IDE supports application development in various languages, including Java, HTML5, PHP and C++. The IDE provides integrated support for the complete development cycle, from project creation through debugging, profiling and deployment. The IDE runs on Windows, Linux, Mac OS X, and other UNIX-based systems. The IDE provides comprehensive support for JDK 7 technologies and the most recent Java enhancements. It is the first IDE that provides support for JDK 7, Java EE 7, and JavaFX 2. The IDE fully supports Java EE using the latest standards for Java, XML, Web services, and SQL.

and fully supports the Glassfish Server, the reference implementation of Java EE. Eclipse is an integrated development environment (IDE) for developing applications using the Java programming language and other programming languages such as C/C++, Python, PERL, Ruby etc. The Eclipse platform which provides the foundation for the Eclipse IDE is composed of plug-ins and is designed to be extensible using additional plug-ins. Developed using Java, the Eclipse platform can be used to develop rich client applications, integrated development environments and other tools. Eclipse can be used as an IDE for any programming language for which a plug-in is available

2.2 EXISTING MEDTHODOLOGIES:

- All Work are done Manually.
- In Manual Booking System Customer has to go to the Tours and Travel Agency.
- Ask Inquiry for Travelling then Book ticket Finally Pay Payment & Collect Receipt.
- Difficult To Maintain the Customer Details of Package and Payment
- Receipt in Register.
- They Register Tour Package in the notebook.
- Add advertisement in Local newspaper or Local Market.
- Use Travelling Facility For the Limited Area or Person.

2.3 PROPOSED METHODOLOGIES:

- To Create Web Based Application For our Organization.
- To Provide Search Facility For Customer.
- To Generate Different Types of Reports.
- To Provide the online Package Ticket Booking and online Payment Facility
- For Customer.
- To Provide package Details.
- Customer Can Cancel the Booking then Return 15% Less Deduct
- From the Amount.
- Services provided by Tour and travels System –
- VIEW PACKAGE
- SEARCH PACKAGE
- BOOKING
- CANCEL BOOKING
- ONLINE PAYMENT

Chapter 3- REQUIREMENT SPECIFICATION:

3.1 SOFTWARE SPECIFICATION

- Operating system: Microsoft windows 10.
- Integrated Development Environment: Netbeans
- MySQL Command Line Client
- Programming

3.2 HARDWARE SPECIFICATION

- System type: 64-bit Operating System, x64-based processor.
- Installed memory (RAM):8.00 GB (7.43 GB Usable)
- Total size of Hard disk: 1 T

Chapter 4- ASSUMPTIONS:

For Assuming that our project is build new and improving the present system we use feasibility study. The feasibility study is undertaken to determine the possibility of either improving the present system or developing a completely new system. It helps to obtain an overview of the problem and get an idea whether a feasible solution exists.

- Operational Feasibility Study : The current system is manual.

Thus processing large amount of data becomes a cumbersome activity. Reports that are generated are difficult to prepare manually and are also error prone. Operationally the Proposed system is feasibility because there are sufficient supports for project from management. It will be running smoother and faster that of existing system.

- Technical Feasibility Study: Generally, new system brings new technology into an organization. The proposed system requires technology and equipment, which can be obtained. the operating system has the technical capacity to hold the data required to use the proposed system. The present equipment technology assures technical guarantee of accuracy, reliability and ease of access.

- Legal/Ethical Feasibility Study: Determines whether the proposed system conflicts with legal requirements.

- Schedule Feasibility Study: A project will fail if it takes too long to be completed before it is useful. Typically this means estimating how long the system will take to develop, and if it can be completed in given time period using some methods like payback period. Schedule feasibility is a measure of how reasonable the project timetable is. Given our technical expertise, are the project deadlines reasonable? Some projects are initiated with specific deadlines. You need to determine whether the deadlines are mandatory or desirable.

- Resource Feasibility Study: This involves questions such as how much time is available to built the new system, when it can be built, whether it interferes with normal business operations, type and amount of resources required, dependencies.

- Cultural Feasibility Study: In this stage, the project's alternatives are evaluated for their impact on the local and generated culture. For example, environmental factors need to be considered and these factors are to be well known. Further an enterprise's own culture can clash with the results of the project.

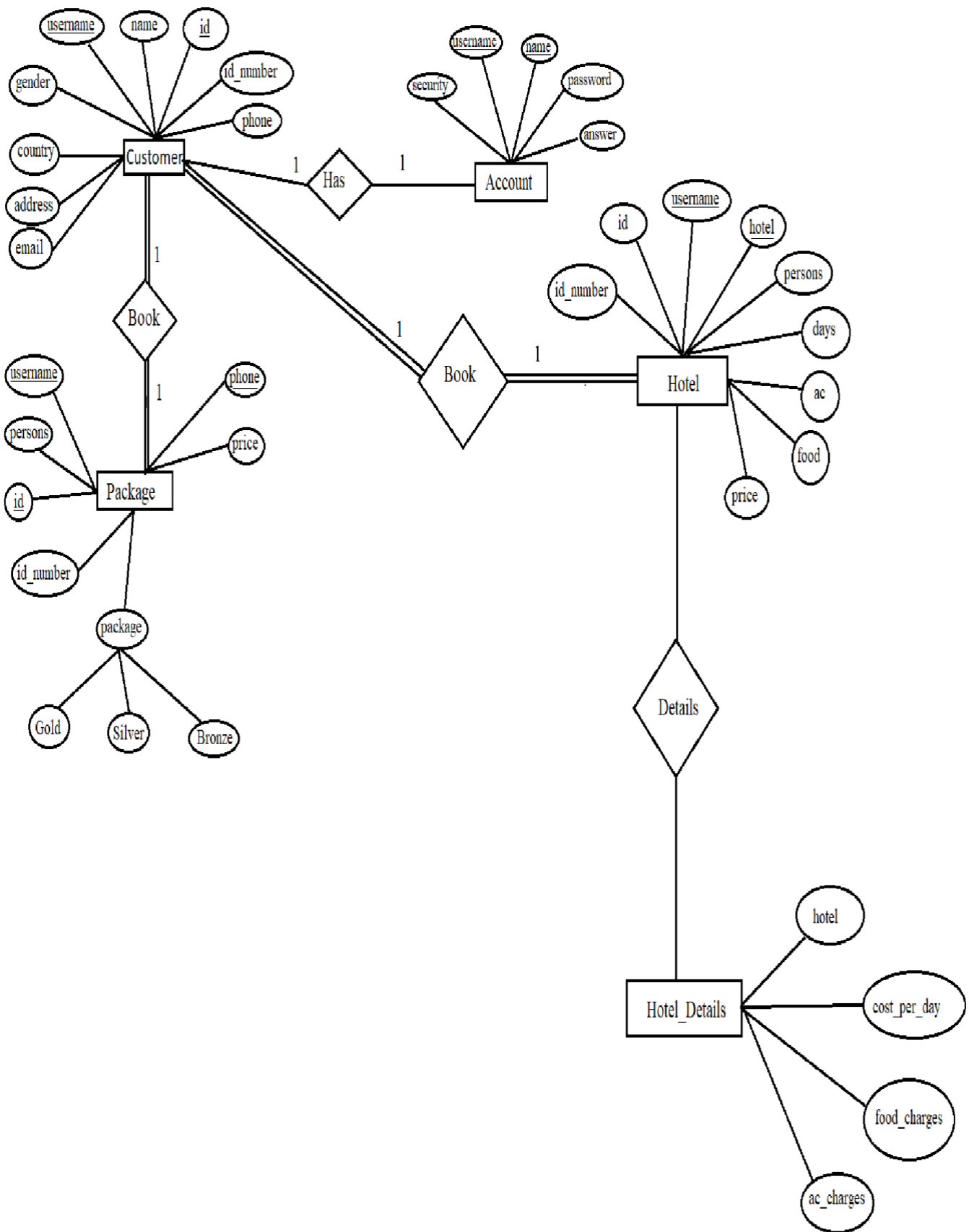
Chapter 5 - ENTITY-RELATIONSHIP DIAGRAM:

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database.

In other words, ER diagrams help to explain the logical structure of databases.

ER diagrams are created based on three basic concepts: entities, attributes and relationships.

ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationship



Chapter 6 – NORMALIZATION:

Test Case Sr no.	Test case	Input Data	Steps to execute the test case	Expected Result	Actual Result	Pass/Fai
1]	Login Screen	Wrong username or password.	After entering the data click on the login button	A proper message indicating the error should appear and the user should be redirected to login screen	A message was displayed saying Invalid username or password	pass
2]	Insertion	If any field was not entered	After entering the data click on the create button	A proper message indicating the error should appear and the user should be redirected to customer screen.	A message was displayed saying Enter all the details properly	pass
3]	Deletion	If any field was not entered.	After entering the data click on the delete button	A proper message indicating the error should appear and the user should be redirected to customer screen.	A message was displayed saying Enter all the details properly	pass
4]	Update	If any field was not entered.	After entering the data click on the update button	A proper message indicating the error should appear and the user should be redirected to update	A message was displayed saying Enter all the details properly	pass

				customer screen.		
--	--	--	--	---------------------	--	--

Chapter 7- TABLES/ COLLECTIONS:

1] ACCOUNT TABLE:

FIELD	TYPE	NULL	KEY	DEFAULT
username	varchar(30)	NO	PRI	NULL
Name	varchar(30)	NO	PRI	NULL
password	varchar(30)	NO		NULL
security	varchar(30)	NO		NULL
Answer	varchar(30)	NO		NULL

2] CUSTOMER TABLE:

FIELD	TYPE	NULL	KEY	DEFAULT
username	varchar(30)	NO	MUL	NULL
id	varchar(30)	NO	PRI	NULL
id_ number	varchar(30)	NO		NULL
name	varchar(30)	NO		NULL
gender	varchar(30)	NO		NULL
country	varchar(30)	NO		NULL
address	varchar(30)	NO		NULL
phone	varchar(30)	NO		NULL
email	varchar(30)	NO		NULL

3] BOOK PACKAGE TABLE:

FIELD	TYPE	NULL	KEY	DEFAULT
username	varchar(30)	NO	MUL	NULL
package	varchar(30)	NO		NULL
persons	int(10)	NO		NULL
id	varchar(30)	NO	MUL	NULL
id_number	varchar(30)	NO		NULL
phone	varchar(30)	NO	PRI	NULL
price	varchar(30)	NO		NULL

4]HOTEL BOOK TABLE:

FIELD	TYPE	NULL	KEY	DEFAULT
username	varchar(30)	NO	MUL	NULL
hotel	varchar(30)	NO	MUL	NULL
persons	int(10)	NO		NULL
days	int(10)	NO		NULL
Ac	varchar(30)	NO		NULL
food	varchar(30)	NO		NULL
Id	varchar(30)	NO	MUL	NULL

5] HOTEL BOOKING TOTAL :

FIELD	TYPE	NULL	KEY	DEFAULT
hotel	varchar(30)	NO	PRI	NULL

cost_per_day	int(10)	NO		NULL
food_charges	int(10)	NO		NULL
ac_charges	Int(10)	NO		NULL

Chapter 9 – jframes:

- 1] The `javax.swing.JFrame` class is a type of container which inherits the `java.awt.Frame` class.
- 2] `JFrame` works like the main window where components like labels, buttons, textfields are added to create a GUI.
- 3] Unlike `Frame`, `JFrame` has the option to hide or close the window with the help of `setDefaultCloseOperation(int)` method.
- 4] Components like `JLabel`, `TextField`, `JRadioButton`, `ButtonGroup`, `JComboBox`, and `TextArea`. These components will collectively form the Registration form.

Chapter 10 : FEATURES:

The important features of JDBC API 3.0 are as follows:

- **Jdbc RowSet** We have done the great discussion on JdbcRowSet in the previous page.
- **Savepoint in transaction management** Now you are able to create, rollback and release the savepoint by `Connection.setSavepoint()`, `Connection.rollback(Savepoint svpt)` and `Connection.releaseSavepoint(Savepoint svpt)` methods.
- **Statement and ResultSet Caching for Connection Pooling** Now you are able to reuse the statement and result set because jdbc 3 provides you the facility of statement caching and result set caching.
- **Switching between Global and Local Transactions**
- **Retrieval of auto generated keys** Now you are able to get the auto generated keys by the method `getGeneratedKeys()`.

The important features of JDBC API 4.0 are given below:

- **Automatic Loading of Driver class** You don't need to write `Class.forName()` now because it is loaded by default since jdbc4.
- **Subclasses of SQLException** Jdbc 4 provides new subclasses of `SQLException` class for better readability and handling.
- **New methods** There are many new methods introduced in `Connection`, `PreparedStatement`, `CallableStatement`, `ResultSet` etc.
- **Improved DataSource** Now data source implementation is improved.
- **Event Handling support in Statement for Connection Pooling** Now `Connection Pooling` can listen statement error and statement closing events.

TRIGGERS:

A trigger is a named database object that is associated with a table, and that activates when a particular event occurs for the table. Some uses for triggers are to perform checks of values to be inserted into a table or to perform calculations on values involved in an update. A trigger is defined to activate when a statement inserts, updates, or deletes rows in the associated table.

These row operations are trigger events. A trigger can be set to activate either before or after the trigger event. For example, you can have a trigger activate before each row that is inserted into a table or after each row that is updated. Trigger used in this application:

```
create trigger `trigger_on_login` after insert on `customer` for each row insert into
users(username,id,id_number,name,country,gender,address,phone,email)
values(NEW.username,NEW.id,NEW.id_number,NEW.name,NEW.country,NEW.gender,
NEW.address,NEW.phone,NEW.email);
```

STORED PROCEDURE:

A stored procedure is a prepared SQL code that you can save, so the code can be reused over and over again. So, if you have an SQL query that you write over and over again, save it as a stored procedure, and then just call it to execute it. You can also pass parameters to a stored procedure, so that the stored procedure can act based on the parameter value(s) that is passed. The most important part is parameters. Parameters are used to pass values to the

phone varchar(30) NO MUL NULL

price varchar(30) NO NULL

Procedure. There are 3 different types of parameters, they are as follows:

- IN: This is the Default Parameter for the procedure. It always receives the values from calling program.
- OUT: This parameter always sends the values to the calling program.
- IN OUT: This parameter performs both the operations. It Receives value from as well as sends the values to the calling program. Stored Procedure used in above application:

To select all the data from customer table:

```
DELIMITER $$
```

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `getCustomer` BEGIN
```

```
SELECT * FROM CUSTOMER;
```

```
END;
```

```
DELIMITER;
```

Chapter 11:

CONCLUSION:

The process of the system we can consider here, can maintain the databases of the system. We can insert to the databases and retrieve all the information.

The main aim of this project is to help the tourists to manage their trip. It makes all operation of the tour company easy and accurate. The standalone platform makes tourism management easy by handling requests and providing servers for the customers located at different parts of the various cities. Different modules have been incorporated in this project to handle different parts and sector of the tour management field.

REFERENCES:

We have taken references from many resources like YouTube and many websites. Websites:

- <https://www.w3schools.com>
- <https://www.javatpoint.com>
- <https://www.codecademy.com>
- <https://www.stackoverflow.com>

YouTube video links:

1. <https://youtu.be/5vzCjvUwMXg>
2. https://youtu.be/dwVj_g3TpZ4
3. <https://youtu.be/L5RpqspNAu>

