# Package 'TimeVizPro'

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**Type** Package

**Title** Dynamic Data Explorer: Visualize and Forecast with 'TimeVizPro'

**Version** 1.0.1

**Date** 2024-03-11

**Description** Unleash the power of time-
series data visualization with ease using our package. Designed with simplicity
in mind, it offers three key features through the 'shiny' package output. The first tab shows time-
series
charts with forecasts, allowing users to visualize trends and changes effortlessly. The sec-
ond one displays
Averages per country presented in tables with accompanying sparklines, provid-
ing a quick and attractive
overview of the data. The last tab presents A customizable world map colored based on user-
defined
variables for any chosen number of countries, offering an advanced visual approach to under-
standing
geographical data distributions. This package operates with just a few simple arguments, en-
abling users
to conduct sophisticated analyses without the need for complex programming skills. Trans-
form your
time-series data analysis experience with our user-friendly tool.

**Depends** R (>= 4.0.0), shiny, countrycode

**Imports** sparkline, ggplot2, ggiraph, dplyr

**Suggests** openxlsx, htmltools, htmlwidgets, DT

**License** GPL-3

**Author** Hossein Hassani [aut],
Fernando Cantu Bazaldua [aut],
Leila Marvian Mashhad [aut, cre]

**Maintainer** Leila Marvian Mashhad <Leila.marveian@gmail.com>

**NeedsCompilation** no

**Repository** CRAN

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# R topics documented:

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TimeVizPro             *Dynamic Data Explorer:Visualize and Forecast with TimeVizPro*

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#### Description

Unleash the power of time-series data visualization with ease using our package. Designed with simplicity in mind, it offers three key features through the Shiny package. The first output shows time-series charts with forecasts, allowing users to visualize trends and changes effortlessly. The second one presents averages per country presented in tables with accompanying sparklines, providing a quick and attractive overview of the data. The last one displays a customizable world map colored based on user-defined variables for any chosen number of countries, offering an advanced visual approach to understanding geographical data distributions.

#### Usage

```
TimeVizPro(Edata, v1,v2,v3,v4,headr = "GPD", Number=32,Fyear=1990)
```

#### Arguments

| | |
|---|---|
| Edata | an input data. |
| v1 | country name column in the input data. |
| v2 | year column in the input data. |
| v3 | the map coloring variable, present in the input data. |
| v4 | the three-letter country code for each country variable in the input data. |
| headr | plot title. |
| Number | the number of real data. |
| Fyear | start date of data |

#### Details

The input data for this program must have four specific columns:

Full country name: This column should contain the full name of each country, as recognized by international standards.

Year: This column should contain the year for which the data is being presented.

Variable to color the map: This column should contain the numerical values that will be used to color the map.

Three-letter country code: This column should contain the three-letter country code for each country, as defined by ISO 3166-1 alpha-3.

The four columns are necessary to ensure that the program can correctly interpret the data and generate the desired output.

The full country name is used to identify the country on the map. The year is used to filter the data to the specific year of interest. The variable to color the map is used to assign colors to different countries on the map. The three-letter country code is used to ensure that the data is correctly associated with the correct country.

## Value

Shiny app including three tabs.

## Author(s)

Hossein Hassani and Fernando Cantu Bazaldua and Leila Marvian Mashhad

## Examples

```
if(interactive()){
d <- read.xlsx("TimeVizPro_1.0.tar.gz/TimeVizPro/inst/extdata/Example.xlsx")

TimeVizPro(d,v1=d$desc,v2=d$year,v3=d$GDPv,v4=d$iso3)
}
```

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