Package 'BusinessDuration'

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Type Package

Title Calculates Business Duration Between Two Dates

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Description Calculates business duration between two dates. This excluding weekends, public holidays and non-business hours.

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LazyData TRUE

Imports chron

NeedsCompilation no

Repository CRAN

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Contents

`businessDuration` *businessDuration*

Description

A function to calculate business duration between two dates excluding weekends, public holidays and non-business hours in days, hours, minutes and seconds.

Usage

```
businessDuration(startdate="",enddate="",starttime=NA,
endtime=NA,weekendlist=c("Saturday","Sunday"),
holidaylist=c(),unit='min')
```

Arguments

startdate	Start date in "POSIXlt"/"POSIXct"
enddate	End date in "POSIXlt"/"POSIXct"
starttime	Start time in 24 hours format as a string. Eg- "07:00:00". Default is NA
endtime	End time in 24 hours format as a string. Eg- "17:00:00". Default is NA
weekendlist	Custom weekend list. Default is "Saturday" & "Sunday"
holidaylist	Custom holiday list. Default is NULL
unit	Unit of duration - "day","hour","min" or "sec". Default is "min"

Details

Returns the business duration between two dates by excluding weekends, public holidays and non-business hours in days, hours, minutes or seconds

Author(s)

Gnaneshwar G

Examples

```
### EXAMPLE 1
library(BusinessDuration)

# start date must be in standard R format
startdate <- strptime("2017-07-01 02:02:00",
"%Y-%m-%d %H:%M:%S")

# End date must be in standard R format
enddate <- strptime("2017-07-07 04:48:00",
"%Y-%m-%d %H:%M:%S")

# Business Start time
starttime <- "07:00:00"

# Business End time
endtime <- "17:00:00"

# Custom holiday list
holidaylist <- as.Date(c("2017-01-01" ,"2017-01-02",
"2017-01-16", "2017-02-15", "2017-02-20", "2017-03-31",
"2017-05-29", "2017-07-04", "2017-09-04", "2017-10-09",
"2017-11-10", "2017-11-11", "2017-11-23" ,"2017-12-25"))

# Custom unit of business duration
unit<-"day"

# Calling the function
businessDuration(startdate = startdate,
                 enddate = enddate,
```

```
                  starttime = starttime,endtime = endtime,
                  holidaylist = holidaylist,
                  unit = unit)

### EXAMPLE 2
library(BusinessDuration)

# Reading the file as dataframe
inputdata <- data.frame("Index"=1:5,
                        "sys_created_on"=c("12/6/2017 8:29",
                                           "12/1/2017 2:36",
                                           "12/6/2017 8:51",
                                           "12/1/2017 8:05",
                                           "12/1/2017 0:07"),
                        "resolved_at"=c("12/11/2017 4:56",
                                        "12/5/2017 4:10",
                                        "12/6/2017 8:52",
                                        "12/7/2017 6:46",
                                        "12/1/2017 0:23"))

# Converting to standard R datetime format
inputdata$sys_created_on <- strptime(inputdata$sys_created_on,
                                     "%m/%d/%Y %H:%M")
inputdata$resolved_at <- strptime(inputdata$resolved_at,
                                  "%m/%d/%Y %H:%M")

# Business open time
starttime <- "08:00:00"

# Business close time
endtime <- "17:00:00"

# Weekend list
weekend_list <- c("Saturday","Sunday")

# Custom US holidays
US_holiday_list <- as.Date(c("2018-01-01",
                             "2018-05-28",
                             "2018-07-04",
                             "2018-09-03",
                             "2018-11-22",
                             "2018-12-25"))

# Business duration - day, hour, min, sec
unit_hour <- "hour"

# Apply function to entire dataframe
inputdata$Biz_Hour<-lapply(1:nrow(inputdata),function(x){
                    businessDuration(startdate = inputdata$sys_created_on[x],
                    enddate = inputdata$resolved_at[x],
                    starttime = starttime,
                    endtime = endtime,
                    weekendlist = weekend_list,
```

```
holidaylist = US_holiday_list,
unit = unit_hour)})
```

Index