

# Package ‘amVennDiagram5’

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**Title** Interactive Venn Diagrams

**Version** 1.0.0

**Description** Creates interactive Venn diagrams using the 'amCharts5' library for 'JavaScript'. They can be used directly from the R console, from 'RStudio', in 'shiny' applications, and in 'markdown' documents.

**License** GPL-3

**URL** <https://github.com/stla/amVennDiagram5>

**BugReports** <https://github.com/stla/amVennDiagram5/issues>

**Imports** htmlwidgets, partitions, venn, utils

**Suggests** shiny

**Encoding** UTF-8

**RoxygenNote** 7.3.1

**NeedsCompilation** no

**Author** Stéphane Laurent [aut, cre],  
amCharts team [cph]

**Maintainer** Stéphane Laurent <laurent\_step@outlook.fr>

**Repository** CRAN

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allVennDiagrams	<i>Enumeration of Venn diagrams</i>
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**Description**

Given the cardinalities of some sets, returns all possible Venn diagrams of these sets.

**Usage**

```
allVennDiagrams(cardinalities, output = "dataframes")
```

**Arguments**

cardinalities	vector of positive integers
output	either "lists" or "dataframes"

**Value**

List of Venn diagrams.

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amVennDiagram	<i>Venn diagram widget</i>
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**Description**

Creates an amVennDiagram widget.

**Usage**

```
amVennDiagram(
  data,
  theme = "default",
  legendPosition = "right",
  elementId = NULL
)
```

**Arguments**

data	a list such as one returned by <a href="#">makeVennData</a>
theme	the theme: "default", "dark", "dataviz", "frozen", "kelly", "material", "moonrise", or "spirited"
legendPosition	legend position: "right" or "bottom"
elementId	a HTML id (usually useless)

**Value**

An amVennDiagram widget.

**Examples**

```
sets <- list(A = 1:20, B = 10:30, C = 15:35)
dat <- makeVennData(sets)
amVennDiagram(dat, theme = "kelly")
```

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amVennDiagram-shiny     *Shiny bindings for 'amVennDiagram'*

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**Description**

Output and render functions for using amVennDiagram within Shiny applications and interactive Rmd documents.

**Usage**

```
amVennDiagramOutput(outputId, width = "100%", height = "400px")

renderAmVennDiagram(expr, env = parent.frame(), quoted = FALSE)
```

**Arguments**

outputId	output variable to read from
width, height	a valid CSS dimension (like "100%", "400px", "auto") or a number, which will be coerced to a string and have "px" appended
expr	an expression that generates an <a href="#">amVennDiagram</a>
env	the environment in which to evaluate expr
quoted	logical, whether expr is a quoted expression (with quote()); this is useful if you want to save an expression in a variable

**Value**

amVennDiagramOutput returns an output element that can be included in a Shiny UI definition, and renderAmVennDiagram returns a shiny.render.function object that can be included in a Shiny server definition.

**Examples**

```
if(require("shiny") && interactive()) {

  library(amVennDiagram5)
  library(shiny)

  sets <- list(A = 1:20, B = 15:38, C = c(0:5, 20, 30:40))
```

```
diagram <- makeVennData(sets)

ui <- fluidPage(
  sidebarLayout(
    sidebarPanel(
      radioButtons(
        "theme", label = "Theme",
        choices = c(
          "default",
          "dark",
          "dataviz",
          "frozen",
          "kelly",
          "material",
          "moonrise",
          "spirited"
        )
      )
    ),
    mainPanel(
      amVennDiagramOutput("diagram", height = "95vh")
    )
  )
)

server <- function(input, output, session) {

  output[["diagram"]] <- renderAmVennDiagram({
    amVennDiagram(
      diagram, theme = input[["theme"]]
    )
  })
}

shinyApp(ui, server)
}
```

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makeVennData

*Venn diagram data from a list of sets*

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### Description

Make data for usage in [amVennDiagram](#).

### Usage

```
makeVennData(sets)
```

**Arguments**

sets                    a named list of vectors representing some sets

**Value**

A list suitable for usage in [amVennDiagram](#).

**Examples**

```
sets <- list(A = 1:20, B = 10:30, C = 15:35)
dat <- makeVennData(sets)
amVennDiagram(dat, theme = "spirited")
```

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