# 1) Idea

Get-coin game it's looks like a **packman** game, it's very simple you need to move **Right** or **Left** or **Up** or **Down** on **2D** coordinate system and try to get coins as much as, to get a coin you need to be in **coin's** postilion. (you can move like you want, get coins It's up to you :))

Input

A **string** contains that where the coins locate and your current position and the steps you will take it. (use point **2** to know how to write it)
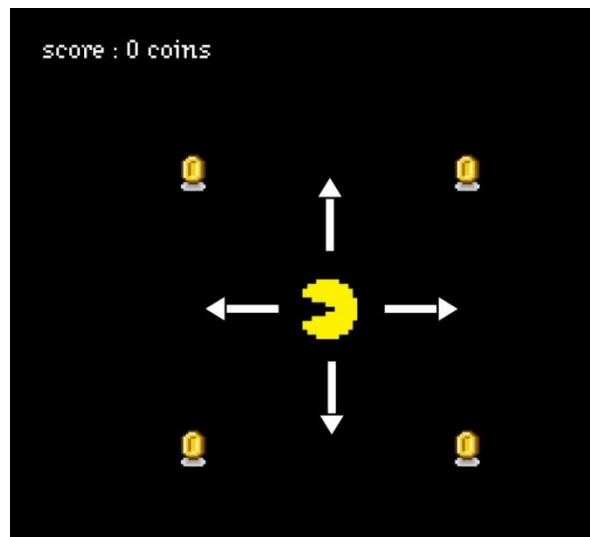
2) Description for language

< start > → [**Coins Map** < Position >] [(**Start Position** (< Point >, < Point >)) (**Steps** < Step >)]

< Step > → < Right > | < Left > | < Up > | < Down >

< Right > → **R** < Right ' >

< Right ' > → **R** < Right ' > | **L** < Left ' > | **U** < Up ' > | **D** < Down ' > | ϵ

< Left > → **L** < Left ' >

< Left ' > → **L** < Left ' > | **R** < Right ' > | **U** < Up ' > | **D** < Down ' > | ϵ

< Up > → **U** < Up ' >

< Up ' > → **U** < Up ' > | **L** < Left ' > | **R** < Right ' > | **D** < Down ' > | ϵ

< Down > → **D** < Down ' >

< Down ' > → **D** < Down ' > | **U** < Up ' > | **L** < Left ' > | **R** < Right ' > | **ϵ**

< Position > → (< Point >, < Point >) < Position' > | (- < Point >, < Point >) < Position' > |

(< Point >, - < Point >) < Position' > | (- < Point >, - < Point >) < Position' >

< Position' > → , < Position > | **ϵ**

< Point > → < Id > < Point' >

< Point' > → < Point > | **ϵ**

< Id > → **0 | 1 | …. | 9**

- **U** — move from (x , y) to (x , y + 1)
- **D** — move from (x , y) to (x , y - 1)
- **L** — move from (x , y) to (x - 1 , y)
- **R** — move from (x , y) to (x + 1 , y)

3) Sample of accepted strings

- [**Coins Map** (2 , 4)] [(**Start Position** (0 , 0)) (**Steps** R R U U U U)]
- [**Coins Map** (0 , 0) , (0 , 2)] [(**Start Position** (0 , 1)) (**Steps** L R R)]
- [**Coins Map** (0 , -2)] [(**Start Position** (0 , 0)) (**Steps** D D)]

4) Sample of rejected strings

- Empty string
- **Coins Map** (2 , 4)] [(**Start Position** (0 , 0))
- **Coins Map** (0 , -2)] [(**Start Position** (0 , 0)) (**Steps** D D)
- U U D D

5) Prototype of interface

C++ graphics

6) Team

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