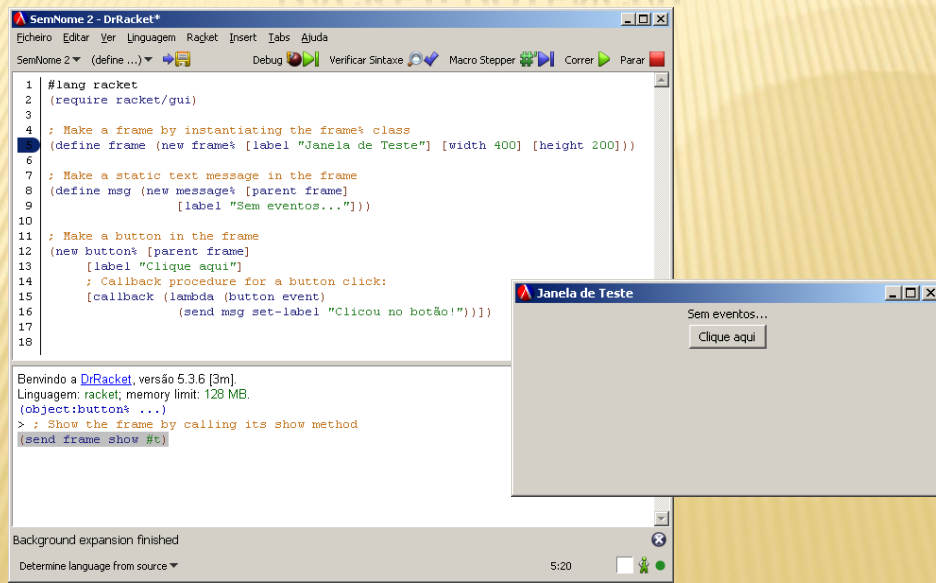


SUMÁRIO - AULA 07

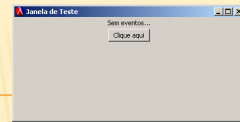
- ❑ Racket
 - ❑ Potencial
 - ❑ Trabalho 01
 - ❑ Codificação
 - ❑ Prova 01
 - ❑ Teoria + codificação



RACKET: POTENCIAL



RACKET: POTENCIAL



❑ Janelas

- ❑ <http://docs.racket-lang.org/gui/windowing-overview.html>

❑ Input + botões

- ❑ http://rosettacode.org/wiki/GUI_component_interaction#Racket

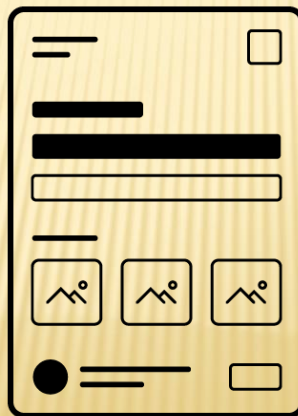
❑ Tabela

- ❑ <http://stackoverflow.com/questions/16646910/gui-table-using-in-racket-variable-parameters-using-list-box>

RACKET: POTENCIAL

❑ Ferramenta de criação de interfaces gráficas

- ❑ <https://github.com/Metaxal/MrEd-Designer>



RACKET: POTENCIAL

❑ Servidor web

❑ #lang web-server/insta

❑ (define (start request)

(response/xexpr

'(html

(head (title "My Blog"))

(body (h1 "Under construction"))

)

)

)



RACKET: POTENCIAL

❑ Servidor web

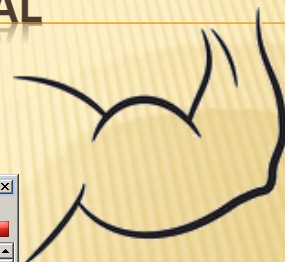
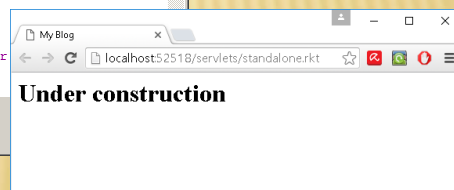
```

1 #lang web-server/insta
2 (define (start request)
3   (response/xexpr
4     '(html
5       (head (title "My Blog"))
6       (body (h1 "Under construction"))
7     )
8   )
9 )

```

Bem-vindo a DrRacket, versão 5.3.6 [3m].
 Linguagem: web-server/insta; memory limit: 128 MB.
 Your Web application is running at
 http://localhost:49299/servlets/standalone.rkt...
 Stop this program at any time to terminate the Web Server

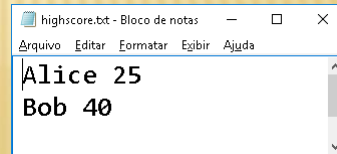
Background expansion finished
 Determine language from source ▼



RACKET: POTENCIAL

❑ Escrever e ler em arquivo:

- ❑ ; importando biblioteca de I/O
- ❑ (require 2http/batch-io)
- ❑ ; escrevendo no arquivo
- ❑ (write-file "C:\\teste.txt" "Alice 25\nBob 40\n")
- ❑ ; recuperando o texto como uma lista de strings
- ❑ (read-lines "highscore.txt").



PostgreSQL

RACKET: POTENCIAL

❑ Conexão com BD (PostgreSQL):

```

1 #lang racket
2 (require db)
3 (define pgc
4   (postgresql-connect
5     #:user "postgres"
6     #:database "Racket"
7     #:server "localhost"
8     #:password "root"
9   )
10 )

Benvido a DrRacket, versão 5.3.6 [3m]
Language: racket, memory limit: 128 MB.
> (query-exec pgc "insert into usuarios values (DEFAULT, 'Fulano')")
> (query-rows pgc "select * from usuarios")
'(#(7 "Fulano"))
> (query-exec pgc "insert into usuarios values (DEFAULT, 'Fulano2')")
> (query-rows pgc "select * from usuarios")
'(#(7 "Fulano") #(8 "Fulano2"))
>
Background expansion finished
Determine language from source
7:31

```



RACKET: POTENCIAL

Conexão com BD (MySQL):

```
#lang racket
(require db)
(define pgc
  (mysql-connect
    #:user "admin"
    #:database "myschema"
    #:server "localhost"
    #:password "root"
  )
)
(query-exec pgc "insert into usuarios values (DEFAULT, 'Nome')")
(query-rows pgc "select * from usuarios")
(query-exec pgc "delete from usuarios")

Bemvindo a DrRacket, versão 6.5 [3m].
Linguagem: racket, with debugging; memory limit: 512 MB.
>
```



RACKET: POTENCIAL

Conexão com BD (SQLite):

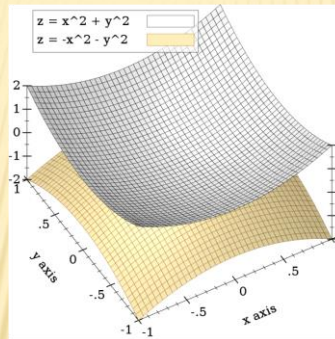
```
#lang racket
(require db)
(define sl3c
  (sqlite3-connect
    #:database "D:/IFC/Dropbox/aulas/Programação Lógica e
Funcional/db/sqlite/plf.db"
  )
)
(query-exec sl3c "insert into usuarios values (null, 'Nome')")
(query-rows sl3c "select * from usuarios")

Bemvindo a DrRacket, versão 6.5 [3m].
Linguagem: racket, with debugging; memory limit: 512 MB.
> (query-exec sl3c "insert into usuarios values (null, 'Nome')");
> (query-rows sl3c "select * from usuarios");
'(#(1 "nome 01") #(2 "Nome"))
```

caminho até o
arquivo do banco

RACKET: POTENCIAL

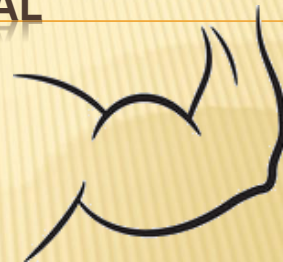
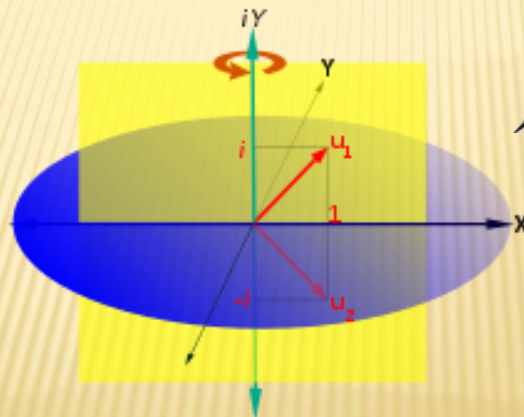
□ Gráficos 3D:



- <https://docs.racket-lang.org/plot/renderer3d.html#%28def.%28%28lib.%2Fmain..rkt%29.surface3d%29%29>

RACKET: POTENCIAL

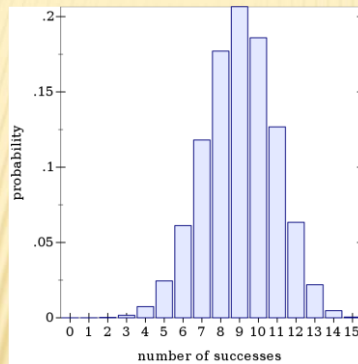
□ Álgebra Linear:



- <https://docs.racket-lang.org/math/matrices.html>

RACKET: POTENCIAL

□ Probabilidade e estatística:



□ <https://docs.racket-lang.org/math/dist.html>

□ <https://docs.racket-lang.org/math/stats.html>

RACKET: POTENCIAL

□ Jogos:

1 Bundled Games

- 1.1 Aces — Solitaire Card Game
- 1.2 Go Fish — Kid's Card Game
- 1.3 Crazy 8s — Card Game
- 1.4 Blackjack — 21 Card Game
- 1.5 Rummy — Card Game
- 1.6 Spider — Solitaire Card Game
- 1.7 Memory — Kid's Game
- 1.8 Slidey — Picture Puzzle
- 1.9 Same — Dot-Removing Game
 - 1.9.1 The Rules
 - 1.9.2 Scoring
- 1.10 Minesweeper — Logic Game
- 1.11 Paint By Numbers — Logic Game

□ <https://docs.racket-lang.org/games/index.html>

□ <https://github.com/racket/games>

RACKET: POTENCIAL

Slides:

```

1 #lang slideshow
2 (require 2htdp/image)
3 (require slideshow-text-style)
4
5 (slide #:title "Título 01"
6   (t "Olá")
7   (t "O texto fica centralizado por padrão! Permite desenhar!")
8   (ellipse 60 60 "solid" "blue"))
9
10
11 (slide #:title "Título 02"
12   (t "Tudo certo? Olha o perigo...")
13   (scale/xy 0.5 0.5
14     (bitmap/url "https://www.kindpng.com/picc/m/28-285441_attention-png-icon-web-icons-png-yellow-warning.png")))
15
16
17
18 (slide #:title "Título 03" #:layout 'top
19   (t "No topo agora, e com linhas em branco...")
20   (blank)
21   (para "E que tal um parágrafo cheio de texto, que vai ser quebrado e alinhado à esquerda?")
22   (blank)
23   (para #:align 'center "E que tal outro parágrafo cheio de texto, que vai ser quebrado mas alinhado ao centro?"))
24
25 (slide #:title "Título 04"
26   (item "Destacando em itens" (bt "este texto!")))
27   (item "E agora uma outra" (colorize (t "importante informação!") "red"))))

```



RACKET: POTENCIAL

Slides:



- ❑ <https://www.asumu.xyz/blog/2018/03/31/making-the-most-of-lang-slideshow/>
- ❑ <http://jujuba.me/resources/slideshow-tutorial.pdf>
- ❑ https://docs.racket-lang.org/slideshow/Creating_Slide_Presentations.html

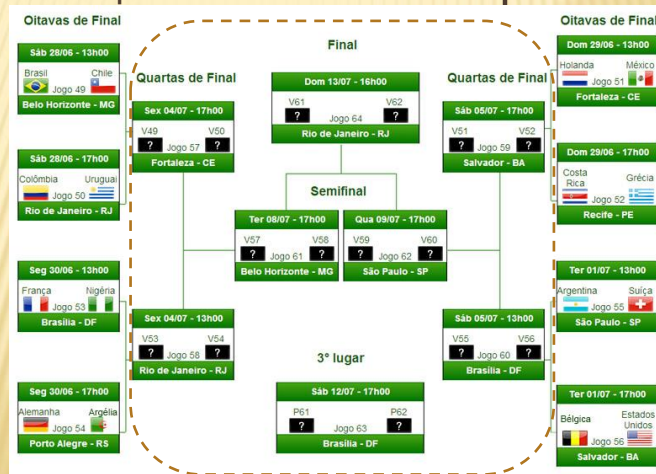
RACKET: RESUMO

- <https://learnxinyminutes.com/docs/racket>



TRABALHO 01

- Até em **dupla**, desenvolva um programa para simular as quartas de final da Copa do Mundo.



TRABALHO 01



FIFA WORLD CUP
Qatar 2022

- ❑ Deve:
 - ❑ Permitir o cadastro e edição de 8 nomes de seleções. Ex: Brasil, Alemanha, etc.
 - ❑ Deve sortear chaveamento dos 4 confrontos.
 - ❑ Deve permitir sortear ou atribuir o resultado dos jogos
 - ❑ Vencedores avançam
 - ❑ Considerar a final e a disputa pelo 3º lugar



TRABALHO 01 (A)

- ❑ Implementar os requisitos mínimos garante **até** nota 7. Pontos **extras** se utilizar:
 - ❑ Interface **gráfica** (2) .
 - ❑ Botões/menus chamando as funções
 - ❑ Executar via **navegador** web (2).
 - ❑ Botões/menus chamando as funções
 - ❑ Usar **banco de dados** (1).
 - ❑ Dados em **arquivo** (1).



TRABALHO 01

□ Mão à obra!

