generate random letter and fixed number combination

Ask Question

Asked 10 years, 6 months ago

Modified 10 years, 6 months ago

Viewed 4k times

5

I need to generate a random sequence of a single letter and 6 digit combination, example: `F841257`

I was looking into `rand` crate, but something doesn't quite work.

```
extern crate rand;

fn main() {
   println!("{:?}", rand::random::<char>());
}
```

prints something like `'\u{6ae02}'` and `println!("{}", rand::random::<char>());` produces some weird glyph.

Can someone point me in the right direction of how I could achieve this?

- random
- rust

Share

Improve this question

Follow

asked May 27, 2015 at 16:11

Caballero

12.2k2222 gold badges106106 silver badges169169 bronze badges

Add a comment |

1 Answer

Sorted by: Reset to default

Highest score (default) Trending (recent votes count more) Date modified (newest first) Date created (oldest first)

11

First, a working program:

```
extern crate rand;

use rand::Rng;

fn main() {
   let mut rng = rand::thread_rng();
   let letter: char = rng.gen_range(b'A', b'Z') as char;
   let number: u32 = rng.gen_range(0, 999999);
   let s = format!("{}{:06}", letter, number);
   println!("{}", s);
}
```

Next, an explanation.

`rand::random::<char>()` returns a random value from the whole `char` range, that is, it may return arbitrary Unicode code point. That's why you see weird glyphs - these are likely values from upper Unicode planes.

You need to define boundaries of what you need to generate. First, you need a letter, then you need six digits. A letter is any character between 'A' and 'Z', and six digits can be represented by a number from 0 to 999999 which is padded with zeros when printing.

So, first, we generate a `u8` which corresponds to a letter in ASCII and convert it to `char` (unfortunately, `rand` crate does not provide range distribution for `chars`, so we have to use such indirection).

Second, we generate a `u32` between 0 and 999999.

Then we print them in the desired format. Here are a few values which this program generates: V285490, Y865809, A704620.

Share

Improve this answer

Follow

edited May 27, 2015 at 16:30

answered May 27, 2015 at 16:24

Vladimir Matveev

129k3535 gold badges311311 silver badges308308 bronze badges

Sign up to request clarification or add additional context in comments.

4 Comments

Add a comment

Francis Gagné

Francis Gagné Over a year ago

Perhaps the reason that no range distribution is provided for `char` is that code points U+D800 to u+DFFF (which correspond to the surrogates) are not valid.

2015-05-28T02:22:39.99Z+00:00

1

Reply

- Copy link

Sebastian

Sebastian Over a year ago

According to the docs, `gen_range` generates in the range [low, high), so not including high. How would I change the code to make Z999999 an option?

2016-04-20T10:10:51.343Z+00:00

0

Reply

- Copy link

Vladimir Matveev

Vladimir Matveev Over a year ago

@Sebastian, `rng.gen_range(0, 1000000)`?

2016-04-20T11:30:57.717Z+00:00

1

Reply

- Copy link

Sebastian

Sebastian Over a year ago

That would work. And `rng.gen_range(b'A', b'Z'+1) as char` for the letter. I think a function with an inclusive range [low, high] would be nice to have...

2016-04-20T11:36:57.87Z+00:00

1

Reply

- Copy link

Add a comment

Your Answer

Thanks for contributing an answer to Stack Overflow!

- Please be sure to *answer the question*. Provide details and share your research!

But *avoid* …

- Asking for help, clarification, or responding to other answers.
- Making statements based on opinion; back them up with references or personal experience.

To learn more, see our tips on writing great answers.

Sign up or log in

Sign up using Google

Sign up using Email and Password

Submit

Post as a guest

Name

Email

Required, but never shown

Post as a guest

Name

Email

Required, but never shown

Post Your Answer Discard

By clicking “Post Your Answer”, you agree to our terms of service and acknowledge you have read our privacy policy.

Start asking to get answers

Find the answer to your question by asking.

Ask question

Explore related questions

- random
- rust

See similar questions with these tags.

- The Overflow Blog
  Introducing Stack Overflow AI Assist—a tool for the modern developer
  Treating your agents like microservices
- Featured on Meta
  Chat room owners can now establish room guidelines
  AI Assist is now available on Stack Overflow
  Policy: Generative AI (e.g., ChatGPT) is banned

Related

97
How can I generate a random number within a range in Rust?
23
How can I get a random number in Rust 1.0?
10
Generate a random u8 from 0 to 255 inclusively
21
How do I generate a vector of random numbers in a range?
0
Generate random letters
41
How do I create a random String by sampling from alphanumeric characters?
3
How to generate a random String of alphanumeric chars?

3

How do I generate random numbers using a SeedableRng?

2

How to seed the Random Number generator in Rust with a string or a number

0

Generating a random Character from range of 2 characters

Hot Network Questions

- Why Select Within Distance set to 1m selects every waterbody?
- Is there any point in sharing a scientific discovery as a "nobody"?
- How to avoid an undesired "nil" in defmacro
- Critiques of the real vs. nominal definition distinction
- Why does black allow white to have a protected passed central pawn here?
- Can I Automatically List Supported Kernel Parameters in GRUB?
- I2C bus problems when using two distance sensors in Arduino
- Can enemies damage each other in Breath of the Wild?
- Zero Inflated Beta Regression (or not)?
- Recent time traveling TV show. The lead might have been Asian(?), set in San Francisco(?)
- Why are left and right cosets different in the non-normal case?
- Misunderstanding the lorentz transformation
- Is there a term for forming emotional or relational bonds with AI chatbots? If not, is “cyberpomorphic” a valid neologism?
- Ping sweep of IP subnets
- PSE Advent Calendar 2025 (Day 5): Cinnamon overdose
- Proportional odds logistic regression for ordered category outcome - how to convert odds ratios to probabilities in this case?
- Storm Sphere and Obstruction
- Is zero-point energy a mathematical artifact?
- How to add blur inside subtracted element in Figma?
- How can I determine whether a complex rational equation has real solutions?
- A very weird integral equation
- TikZ word search diagram v2
- What do the terms postponement, slip and scrub mean in the context of the space shuttle program?
- Why does Blender import PLY vertex colors incorrectly (89 → 0.1 instead of 0.349)?

more hot questions

Question feed

Subscribe to RSS

Question feed

To subscribe to this RSS feed, copy and paste this URL into your RSS reader.

- Terms of Service
- Contact Us
- Cookie Settings
- Cookie Policy

Stack Exchange Network

- Technology
- Culture & recreation
- Life & arts
- Science
- Professional
- Business
- API
- Data
- Blog
- Facebook
- Twitter
- LinkedIn
- Instagram

Site design / logo © 2025 Stack Exchange Inc; user contributions licensed under CC BY-SA . rev 2025.12.4.37651