# **HUMAN PORTRAITS**

images of naked humans

```
Script:
```

```
from typing import List, Tuple from fpdf import FPDF import itertools import random import os import string import numpy as np import re from math import nan from datetime import datetime import sys
```

print('Hello there! This program lets you decide which categorys with its attributes you want to include in your collection.\nAfter all informations are collected a number will be appended to each item of its category.\nThen each attribute will appear this amount of times in an upgoing order.\nHave fun!')

print('As soon as all pages are printed it will be your task to stage yourself in front of the camera with the attributes given to you.\n')

print('At the very end these images are fed back into the program and become a new complete PDF (it could even be printed live!).\nHave fun!\n')

```
#Collecting first data
project_title = input("Enter your Project title: ")
if project_title == None:
  project_title = 'New Project'
short_description = input("Enter a short description: ")
author_name = input("Add your name: ")
#Size of collection
page_count = int(input('How big do you want your collection to be?\n(min. 50; max. 10000) Enter size: '))
if page_count == None:
  page_count = 100
if page_count > 10000:
  print('Please keep your collection smaller than 10000!')
  exit()
if page_count < 50:
  print('Please make the collection bigger!')
  exit()
categories_per_page = int(input('How many attributes or categorys do you want in your collection to be?\n(min.
5; max. 20) Enter size: '))
if categories_per_page == None:
  categories_per_page = 20
#page_count = 100
#categories_per_page = 3
#All categorys
category_attributes_map = {}
print('What attributes would you like to include in this collection?')
for i in range(0, categories_per_page):
  category = input(f"Enter category {i+1}: ")
  print(f"Enter all attributes of category {category} at index\n(seperate with a comma)")
  items = input()
  items_I = items.split(',')
  category_attributes_map[category] = items_l
  if len(items_l) < 5:
     print("Warning, you have not enough items, be creative!")
     exit()
  elif len(items_l) > 12:
     print("Warning, you chose too many items, please respect the limit!")
     exit()
#Code from Guillaume Jacquenot and pjs (Stackoverflow: edited Jan 23, 2020 at 20:45)
def random_sum_to(n, num_terms = None):
  num_terms = (num_terms or random.randint(2, n)) - 1
  a = random.sample(range(1, n), num_terms) + [0, n]
```

```
list.sort(a)
  return [a[i+1] - a[i] for i in range(len(a) - 1)]
#Function to merge each item with a computed number (possibility of appearance) and put them in order.
#k = specifies the list of items for each category.
def filler(attributes: list) -> List[Tuple[str, int]]:
  new_list = []
  temp_list = random_sum_to(page_count, len(attributes))
  #Add random numbers to the new list and sort the list
  temp_list.sort()
  for i in range(0, len(attributes)):
     new_list.append((attributes[i], temp_list[i]))
  return new_list
# print(str(attributes[0]) + ': ' + str(clean_up_list(n1)))
# print(str(attributes[1]) + ': ' + str(clean_up_list(n2)))
# print('\n')
# print(str(attributes[2]) + ': ' + str(clean_up_list(n3)))
"Function to save a PDF"
def save_pdf(filename):
  path = r'dp_pdfs' # Make sure to create the specific folder in advance.
  pdf.output(path + filename)
# Function to extract the probability of an item
def extract number(item):
  # Create a list of all numerical characters
  n = [e for e in item if e.isnumeric()]
  # Join numbers (characters) to one number
  n = ".join(n)
  # Convert string to int
  n = int(n)
  return n
"Empty lists to be filles"
pdf = FPDF('P', 'mm', (220,405)) #297 mm x 210 mm = A4
pdf.set_margins(left=5, top=5, right=5)
pdf.set_author(str(author_name))
pdf.set_title(str(project_title))
pdf.add_font('nulshock_bd', 'B', r'dp_fonts\nulshock_bd.ttf', uni=True)
"COVER"
#First parameters for the cover
pdf.add_page()
pdf.set_text_color(0,0,0)
#Title
txt = str(project_title)
pdf.set_font('nulshock_bd', 'B', 40)
pdf.set_y(70)
pdf.multi_cell(w=0, h=0, txt=txt, align='C')
#Header
txt = str(short_description)
pdf.set_font("helvetica", "I", 12)
pdf.set y(190)
pdf.multi_cell(w=0, h=10, txt=txt, align='C')
#Author
txt = str(author_name)
pdf.set_font("helvetica", "", 12)
pdf.set y(310)
pdf.multi_cell(w=0, h=10, txt=txt, align='C')
pdf.ln()
```

```
#pdf.add_page()
#pdf.set_margins(left=20, top=30, right=30)
#pdf.set_auto_page_break
#pdf.set_text_color(0,0,0)
#pdf.set_font("helvetica", "", 12)
#pdf.set_y(30)
#pdf.set_x(25)
#with
open(r"C:\Users\2578932\Documents\Module_Bauhaus_Uni\Fachmodule\5_Semester\bpwp\pbwp_001\Party
People\dp_decription.txt", "r", encoding='latin-1') as f: #utf-8
# description = f.read()
#pdf.multi_cell(w=0, h=8, txt=str(description), align='L')
#pdf.ln()
#Render code
filename = sys.argv[0]
with open(filename, "r", encoding='utf-8') as f:
  txt = f.read()
pdf.add_page()
pdf.set_margins(left=20, top=30, right=20)
pdf.set_font_size(10)
pdf.set_y(25)
pdf.set_x(25)
pdf.multi_cell(0, h=5, txt="Script:\n\n"+txt, align='L')
pdf.ln()
"'functions to change font for description and Trait"
#defines position of first and second row to make two blocks
def m_cell_left(name: str, attribute: str):
  pdf.set_font('helvetica', style=", size=11)
  pdf.set_x(14)
  pdf.multi_cell(0,3,txt=str(name + ': ' + attribute + '\n'), align='L')
  pdf.ln()
  #pdf.set_font('helvetica', style='I')
  #pdf.set_x(49)
  #pdf.multi_cell(0,7,txt=attribute, align='L')
def m_cell_right(name: str, attribute: str):
  pdf.set_font('helvetica', style=", size=11)
  pdf.set_x(104)
  pdf.multi_cell(0,3,txt=str(name + ': ' + attribute + '\n'), align='L')
  pdf.ln()
  #pdf.set_font('helvetica', style='I')
  #pdf.set_x(140)
  #pdf.multi_cell(0,7,txt=attribute, align='L')
for category, attributes_w_count in category_attributes_map.items():
  attributes_w_count = filler(attributes_w_count)
  attributes_multiplied = []
  for attribute, count in attributes_w_count:
     for _ in range(count):
       attributes_multiplied.append((attribute, count))
  category_attributes_map[category] = attributes_multiplied
for i in range(page count):
  number = i+1
  pdf.set_font('nulshock_bd', 'B', 12)
  pdf.add_page()
  pdf.set_y(15)
  pdf.set_x(14)
  rarityy = f"{number} / {page_count}"
  pdf.multi_cell(0,5,txt=("Rarity Rank: "+ str(rarityy)))
  pdf.ln(5)
```

#Description

```
#INSERT IMAGE
  #path =
r"C:\Users\2578932\Documents\Module_Bauhaus_Uni\Fachmodule\5_Semester\bpwp\pbwp_001\PartyPeople
\dp_images\image_"
  \#img\_ext = i+1
  \#ext = ".jpg"
  #img_name = path + str(img_ext) + ext
  #pdf.set_compression(True)
  \#pdf.image(img_name, x = bn, y = 25, w = 190, h = 0)
  idx = 0
  pdf.set_y(30)
  for category, attributes_w_count in category_attributes_map.items():
    idx += 1
    attribute, count = attributes_w_count[i]
    #if idx > 10:
       #m_cell_right(category, f"{attribute} {count}%\n")
    #else:
    m_cell_left(category, f"{attribute} {count}%\n")
  #page numbers
  pdf.set_font('nulshock_bd', 'B')
  pdf.set_font_size(40)
  pdf.set_y(371)
  #if number < 10:
  # x_pos_n = 190
  #elif number >= 10:
  # x_pos_n = 181
  #elif number == 100:
  # x_pos_n = 172
  #pdf.set_x(x_pos_n)
  pdf.set_x(180)
  pdf.multi_cell(0,0,txt=str(number))
#END
pdf.add_page()
end_txt = 'Interactive reallife NFT-generator by Jasper Venter \n\nSummer semester 202'
pdf.set_font("helvetica", "", 15)
pdf.set_y(200)
x_pos_n = 20
#set_p(end_txt)
pdf.multi_cell(0,5, txt=end_txt, align='L')
#get timestamp and save pdf
now = datetime.now()
current_time = now.strftime("%H%M")
save_pdf(f"/{project_title}-{current_time}.pdf")
```

print('Your attributes are all set, time to get in front of the camera!')

#### **RARITY RANK: 1 / 100**

hair: blond 5%

skin colour: yesuiefn 1%

augen: geazssgsg 2%

groesse: tall small 4%

dgsgs: sdgdsgdsg 2%

#### **RARITY RANK: 2 / 100**

hair: blond 5%

skin colour: sfe 6%

augen: geazssgsg 2%

groesse: tall small 4%

dgsgs: sdgdsgdsg 2%

#### **RARITY RANK: 3 / 100**

hair: blond 5%

skin colour: sfe 6%

augen: rsg 3%

groesse: tall small 4%

# RARITY RANK: 4 / 100

hair: blond 5%

skin colour: sfe 6%

augen: rsg 3%

groesse: tall small 4%

#### **RARITY RANK: 5 / 100**

hair: blond 5%

skin colour: sfe 6%

augen: rsg 3%

groesse: fat 4%

# **RARITY RANK: 6 / 100**

hair: braun 14%

skin colour: sfe 6%

augen: srgr 4%

groesse: fat 4%

#### **RARITY RANK: 7 / 100**

hair: braun 14%

skin colour: sfe 6%

augen: srgr 4%

groesse: fat 4%

# RARITY RANK: 8 / 100

hair: braun 14%

skin colour: esfsef 9%

augen: srgr 4%

groesse: fat 4%



#### **RARITY RANK: 9 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: srgr 4%

groesse: thin 7%

# **RARITY RANK: 10 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: drg 4%

groesse: thin 7%



# **RARITY RANK: 11 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: drg 4%

groesse: thin 7%

# **RARITY RANK: 12 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: drg 4%

groesse: thin 7%

# **RARITY RANK: 13 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: drg 4%

groesse: thin 7%

# **RARITY RANK: 14 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: dg 7%

groesse: thin 7%

# **RARITY RANK: 15 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: dg 7%

groesse: thin 7%

# **RARITY RANK: 16 / 100**

hair: braun 14%

skin colour: esfsef 9%

augen: dg 7%

groesse: sfs 8%

# **RARITY RANK: 17 / 100**

hair: braun 14%

skin colour: sef 10%

augen: dg 7%

groesse: sfs 8%

# **RARITY RANK: 18 / 100**

hair: braun 14%

skin colour: sef 10%

augen: dg 7%

groesse: sfs 8%

# **RARITY RANK: 19 / 100**

hair: braun 14%

skin colour: sef 10%

augen: dg 7%

groesse: sfs 8%

# **RARITY RANK: 20 / 100**

hair: grün 15%

skin colour: sef 10%

augen: dg 7%

groesse: sfs 8%

# **RARITY RANK: 21 / 100**

hair: grün 15%

skin colour: sef 10%

augen: dr 9%

groesse: sfs 8%

# **RARITY RANK: 22 / 100**

hair: grün 15%

skin colour: sef 10%

augen: dr 9%

groesse: sfs 8%

# **RARITY RANK: 23 / 100**

hair: grün 15%

skin colour: sef 10%

augen: dr 9%

groesse: sfs 8%

# **RARITY RANK: 24 / 100**

hair: grün 15%

skin colour: sef 10%

augen: dr 9%

groesse: fgsdg 20%

#### **RARITY RANK: 25 / 100**

hair: grün 15%

skin colour: sef 10%

augen: dr 9%

groesse: fgsdg 20%

# **RARITY RANK: 26 / 100**

hair: grün 15%

skin colour: sef 10%

augen: dr 9%

groesse: fgsdg 20%

#### **RARITY RANK: 27 / 100**

hair: grün 15%

skin colour: sef 12%

augen: dr 9%

groesse: fgsdg 20%

#### **RARITY RANK: 28 / 100**

hair: grün 15%

skin colour: sef 12%

augen: dr 9%

groesse: fgsdg 20%

# **RARITY RANK: 29 / 100**

hair: grün 15%

skin colour: sef 12%

augen: dr 9%

groesse: fgsdg 20%

#### **RARITY RANK: 30 / 100**

hair: grün 15%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

#### **RARITY RANK: 31 / 100**

hair: grün 15%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 32 / 100**

hair: grün 15%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 33 / 100**

hair: grün 15%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

# **RARITY RANK: 34 / 100**

hair: grün 15%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 35 / 100**

hair: lila 18%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 36 / 100**

hair: lila 18%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 37 / 100**

hair: lila 18%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 38 / 100**

hair: lila 18%

skin colour: sef 12%

augen: g 16%

groesse: fgsdg 20%



### **RARITY RANK: 39 / 100**

hair: lila 18%

skin colour: sef 14%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 40 / 100**

hair: lila 18%

skin colour: sef 14%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 41 / 100**

hair: lila 18%

skin colour: sef 14%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 42 / 100**

hair: lila 18%

skin colour: sef 14%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 43 / 100**

hair: lila 18%

skin colour: sef 14%

augen: g 16%

groesse: fgsdg 20%

### **RARITY RANK: 44 / 100**

hair: lila 18%

skin colour: sef 14%

augen: g 16%

groesse: dsgs 28%

### **RARITY RANK: 45 / 100**

hair: lila 18%

skin colour: sef 14%

augen: g 16%

groesse: dsgs 28%

### **RARITY RANK: 46 / 100**

hair: lila 18%

skin colour: sef 14%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 47 / 100**

hair: lila 18%

skin colour: sef 14%

augen: rs 24%

groesse: dsgs 28%

### **RARITY RANK: 48 / 100**

hair: lila 18%

skin colour: sef 14%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 49 / 100**

hair: lila 18%

skin colour: sef 14%

augen: rs 24%

groesse: dsgs 28%

### **RARITY RANK: 50 / 100**

hair: lila 18%

skin colour: sef 14%

augen: rs 24%

groesse: dsgs 28%



### **RARITY RANK: 51 / 100**

hair: lila 18%

skin colour: sef 14%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 52 / 100**

hair: lila 18%

skin colour: sef 14%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 53 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 54 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

### **RARITY RANK: 55 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 56 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

### **RARITY RANK: 57 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

### **RARITY RANK: 58 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%



# **RARITY RANK: 59 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%



# **RARITY RANK: 60 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 61 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 62 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 63 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 64 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 65 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

# **RARITY RANK: 66 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

dgsgs: sdg 35%

# **RARITY RANK: 67 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%

dgsgs: sdg 35%

# **RARITY RANK: 68 / 100**

hair: pink 23%

skin colour: sf 16%

augen: rs 24%

groesse: dsgs 28%



# **RARITY RANK: 69 / 100**

hair: pink 23%

skin colour: seg 32%

augen: rs 24%

groesse: dsgs 28%

## **RARITY RANK: 70 / 100**

hair: pink 23%

skin colour: seg 32%

augen: dgrgd 31%

groesse: dsgs 28%

## **RARITY RANK: 71 / 100**

hair: pink 23%

skin colour: seg 32%

augen: dgrgd 31%

groesse: dsgs 28%

## **RARITY RANK: 72 / 100**

hair: pink 23%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 73 / 100**

hair: pink 23%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 74 / 100**

hair: pink 23%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 75 / 100**

hair: pink 23%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 76 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 77 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 78 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 79 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 80 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



## **RARITY RANK: 81 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 82 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 83 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



## **RARITY RANK: 84 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 85 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



## **RARITY RANK: 86 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



## **RARITY RANK: 87 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 88 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



## **RARITY RANK: 89 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



## **RARITY RANK: 90 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 91 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 92 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 93 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 94 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 95 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



## **RARITY RANK: 96 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 97 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

## **RARITY RANK: 98 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



# **RARITY RANK: 99 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%

# **RARITY RANK: 100 / 100**

hair: blau 25%

skin colour: seg 32%

augen: dgrgd 31%

groesse: df 29%



Interactive reallife NFT-generator by Jasper Venter Summer semester 202