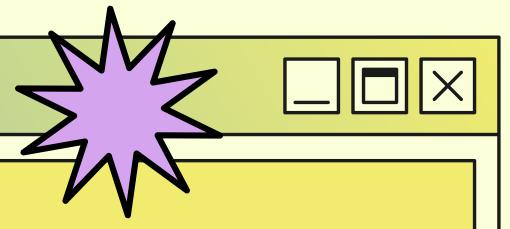
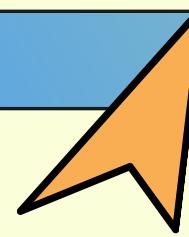




El Pintastico

Presentado por:



A graphic of a web browser window is overlaid on the slide. The address bar contains the URL "Universidad Nacional de Colombia sede de La Paz". The browser interface includes standard controls like back/forward, search, and tabs.

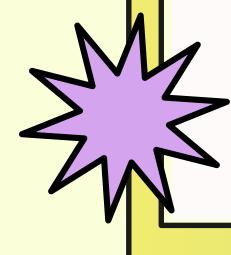
Universidad Nacional de Colombia sede de La Paz

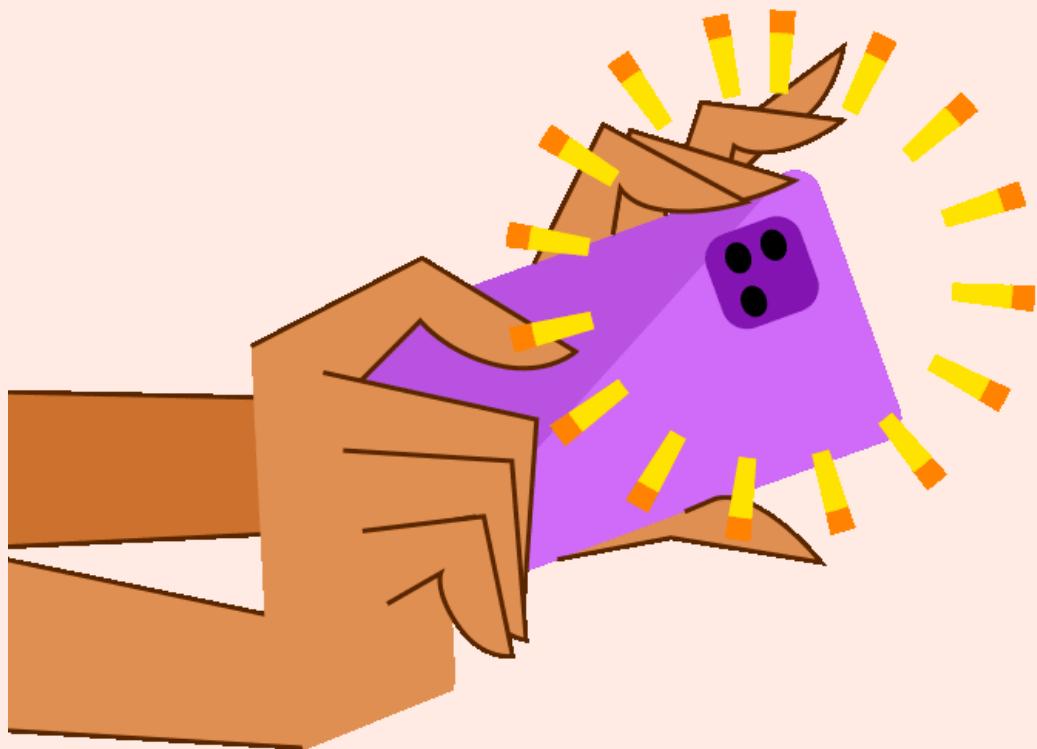
Hugo Francisco Rincon Lopez - Estudiante de pregrado en
Ingeniería Mecatrónica.

Andres Felipe Torrijos Herazo - Estudiante de pregrado en
Ingeniería Mecatrónica.

Luis Angel Peña Diaz - Estudiante de pregrado en Ingeniería
Mecatrónica.

Wilhelm David Buitrago Garcia - Estudiante de pregrado en
Ingeniería Mecatrónica.





Diseño de una app de vestuario asistida por un agente artificial





1

Algoritmo de búsqueda



Busqueda



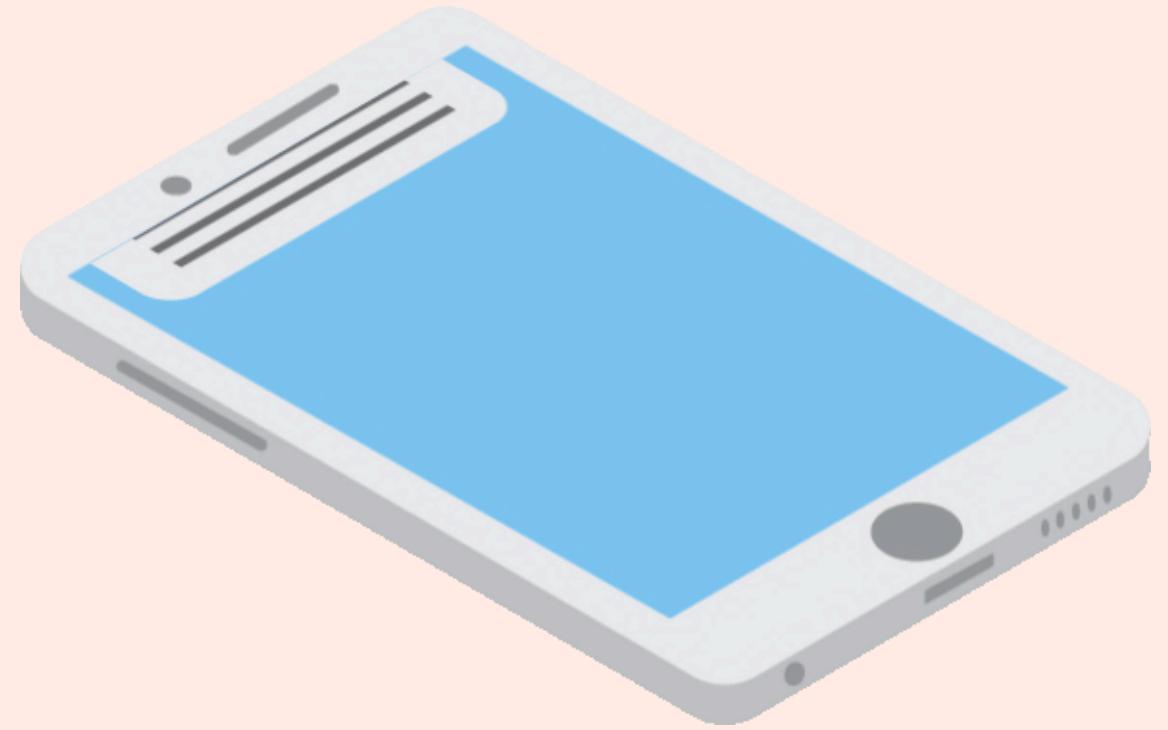
El programa realiza una búsqueda por profundidad para encontrar combinaciones de cuatro prendas, una para cada tipo, los cuales son:

- cabeza
- torso
- piernas
- zapatos

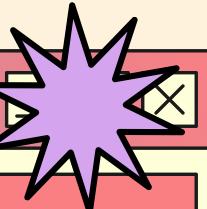
Una vez encuentra una combinación entre las opciones disponibles genera una pinta que evalúa en un paso más adelante.

Lógica y base de conocimiento

2



El programa utiliza la logica para descartar todas las prendas que no tengan el mismo estilo que el deseado.



Logica

Formal



Casual



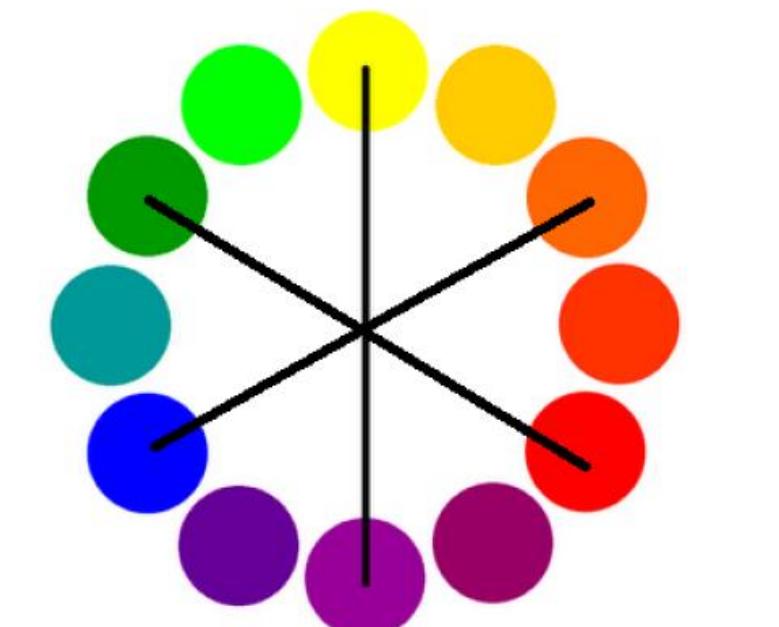
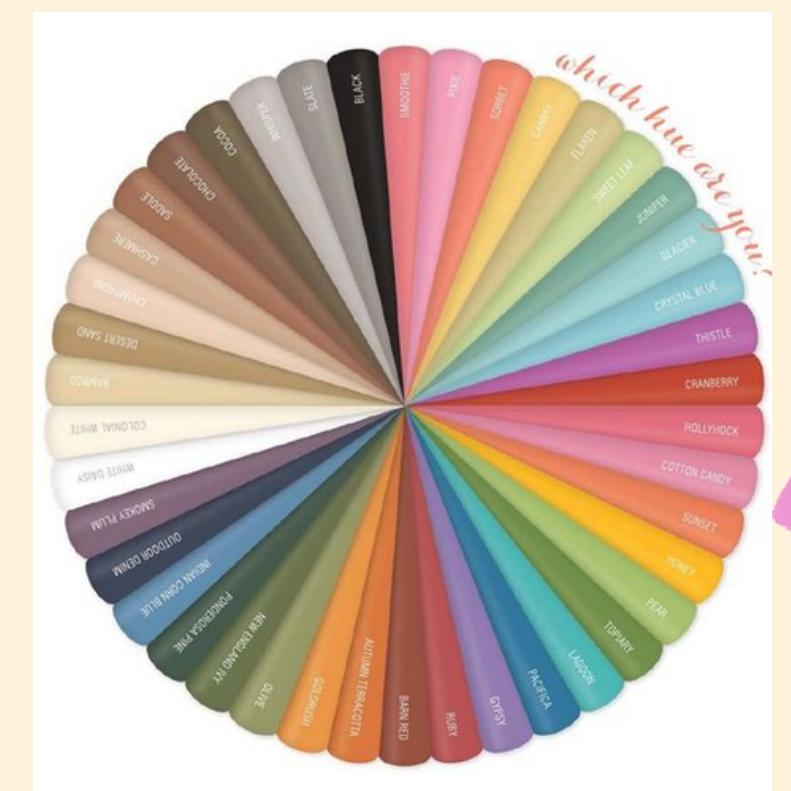
Deportiva



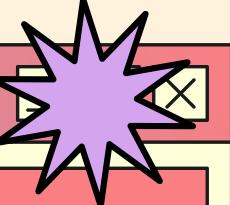
Semiformal



Mejores combinaciones de color



COLORES COMPLEMENTARIOS

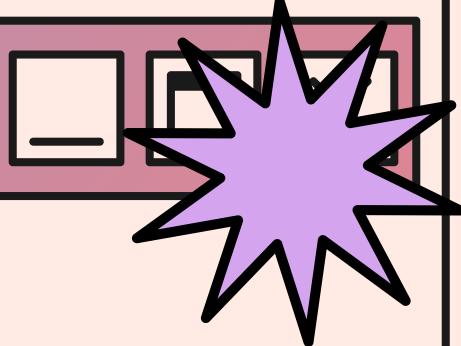


Logica

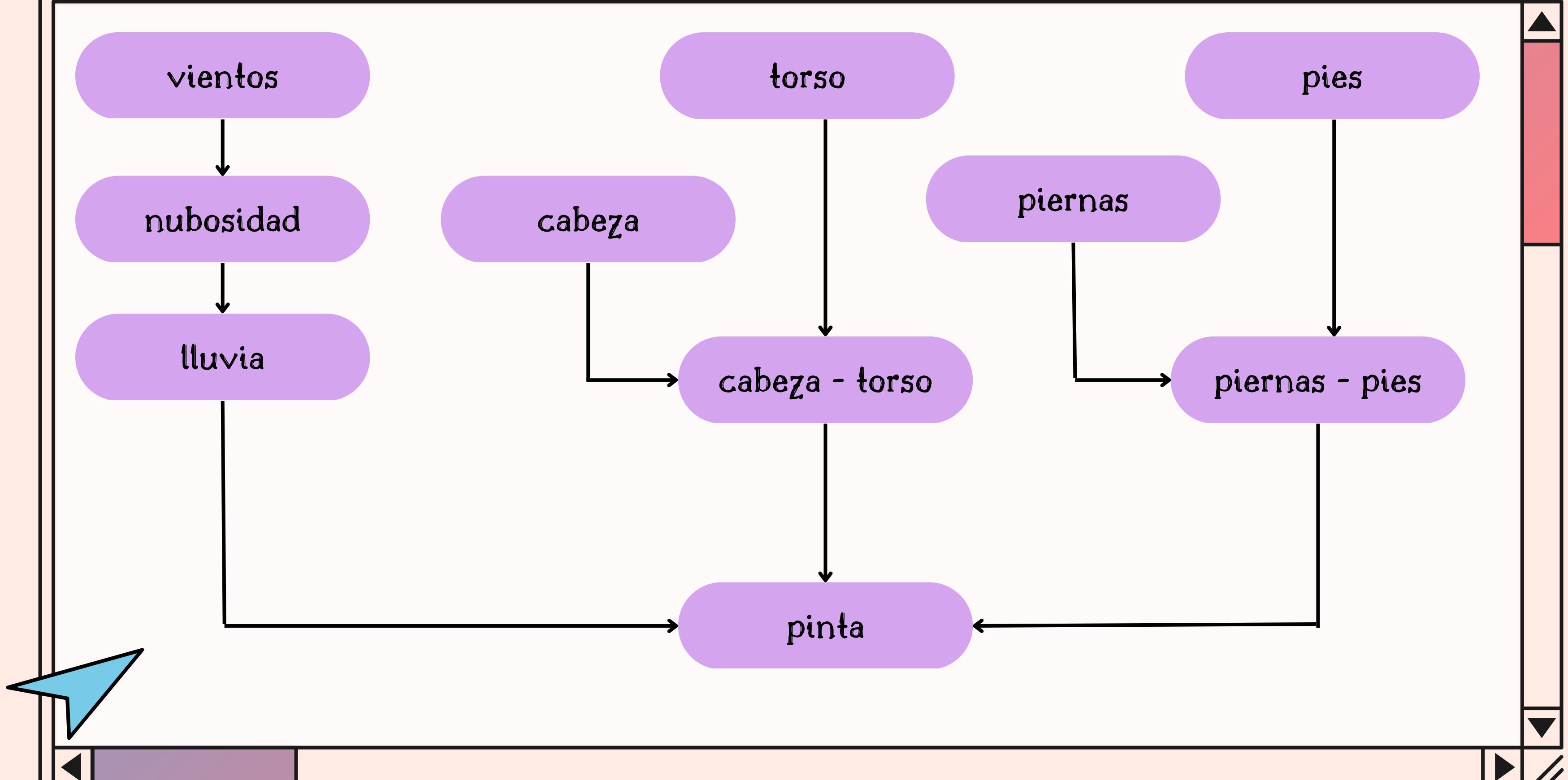


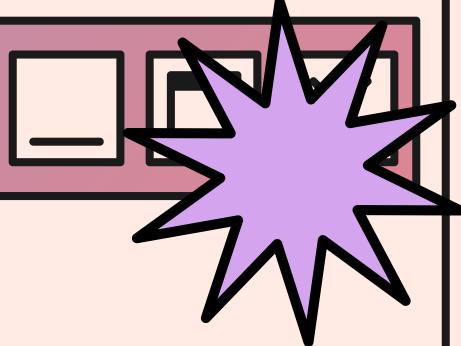
Inferencia de probabilidades

3



Probabilidad - esquema





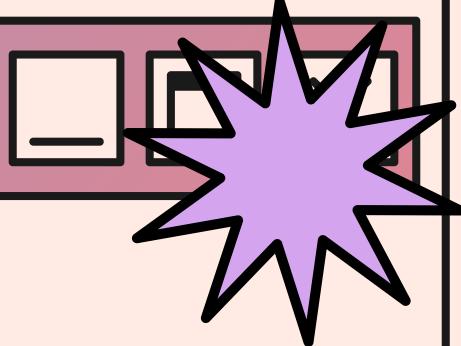
Probabilidad - prendas

| | | | | |
|--------|-------|-------|----------|------|
| cabeza | gorro | gorra | sombrero | nada |
| | 0.2 | 0.3 | 0.2 | 0.3 |

| | | | |
|-------|--------|--------|----------|
| torso | camisa | sueter | chaqueta |
| | 0.5 | 0.3 | 0.2 |

| | | | | |
|---------|----------|----------|-------------|---------|
| piernas | pantalon | sudadera | pantaloneta | bermuda |
| | 0.3 | 0.2 | 0.2 | 0.3 |

| | | | |
|------|----------|----------|-------|
| pies | clasicos | chanclas | tenis |
| | 0.4 | 0.2 | 0.4 |

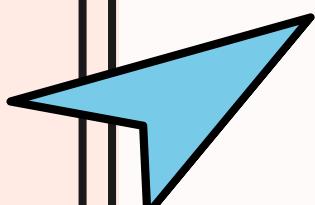


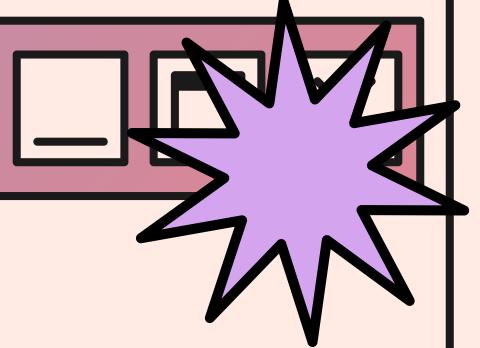
Probabilidad climatica

| Vientos | si | no |
|---------|-----|-----|
| | 0.4 | 0.6 |
| vientos | si | no |
| si | 0.7 | 0.3 |
| no | 0.2 | 0.8 |

| | nubosidad | |
|---------|-----------|-----|
| vientos | si | no |
| si | 0.7 | 0.3 |
| no | 0.2 | 0.8 |

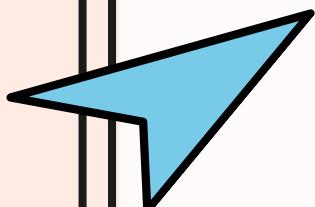
| | lluvia | |
|-----------|--------|-----|
| nubosidad | si | no |
| si | 0.7 | 0.3 |
| no | 0.2 | 0.8 |

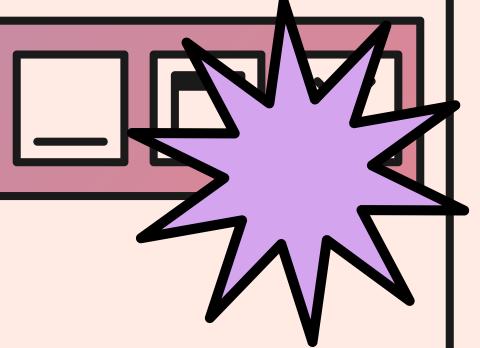




Probabilidad combinación cabeza - torso

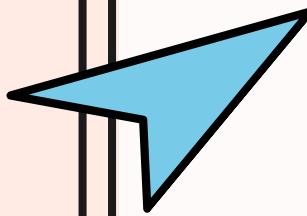
| | | cabeza - torso adecuada | |
|----------|----------|-------------------------|-----|
| cabeza | torso | si | no |
| gorro | camisa | 0.2 | 0.8 |
| gorro | sueter | 0.8 | 0.2 |
| gorro | chaqueta | 0.7 | 0.3 |
| gorra | camisa | 0.5 | 0.5 |
| gorra | sueter | 0.9 | 0.1 |
| gorra | chaqueta | 0.6 | 0.4 |
| sombrero | camisa | 0.8 | 0.2 |
| sombrero | sueter | 0.2 | 0.8 |
| sombrero | chaqueta | 0.1 | 0.9 |
| nada | camisa | 0.7 | 0.3 |
| nada | sueter | 0.7 | 0.3 |
| nada | chaqueta | 0.7 | 0.3 |

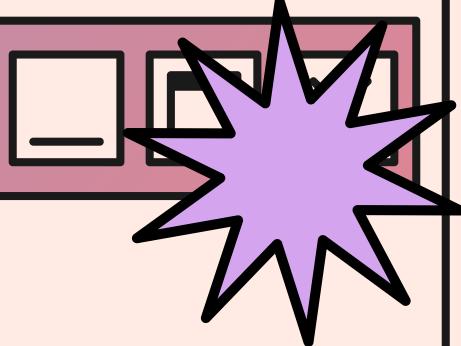




Probabilidad combinación piernas - pies

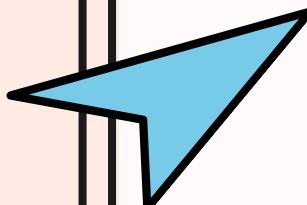
| | | piernas - pies adecuado | |
|-------------|----------------|-------------------------|------|
| piernas | pie | si | no |
| pantalon | zapatos clasic | 0.9 | 0.1 |
| pantalon | chanclas | 0.3 | 0.7 |
| pantalon | tenis | 0.4 | 0.6 |
| sudadera | zapatos clasic | 0.1 | 0.9 |
| sudadera | chanclas | 0.3 | 0.7 |
| sudadera | tenis | 0.9 | 0.1 |
| pantaloneta | zapatos clasic | 0.05 | 0.95 |
| pantaloneta | chanclas | 0.9 | 0.1 |
| pantaloneta | tenis | 0.6 | 0.4 |
| bermuda | zapatos clasic | 0.7 | 0.3 |
| bermuda | chanclas | 0.7 | 0.3 |
| bermuda | tenis | 0.8 | 0.2 |





Probabilidad combinación pinta completa

| | | | pinta adecuada | |
|--------|----------------|----------------|----------------|-----|
| lluvia | cabeza - torso | piernas - pies | si | no |
| si | si | si | 0.9 | 0.1 |
| si | si | no | 0.3 | 0.7 |
| si | no | si | 0.2 | 0.8 |
| si | no | no | 0.1 | 0.9 |
| no | si | si | 0.6 | 0.4 |
| no | si | no | 0.3 | 0.7 |
| no | no | si | 0.8 | 0.2 |
| no | no | no | 0.2 | 0.8 |





El Pintástico

Porque una buena pinta te puede salvar la noche



GRACIAS