

Proyecto ML

PREDICCIÓN DE PRECIOS DE CASAS PREFABRICADAS



1. Cliente y reto

Presentación del cliente y problema a resolver



2. Modelo de Machine Learning

Presentación de la idea y del modelo de Machine Learning

3. Análisis y conclusiones

Análisis de los resultados, de las features y conclusiones

4. Aplicación

Resentación de la demo de la aplicación

Índice

1. Cliente y reto



Andrés Guijarro
CEO EcoHabitat

**Empresa de casas
prefabricadas**

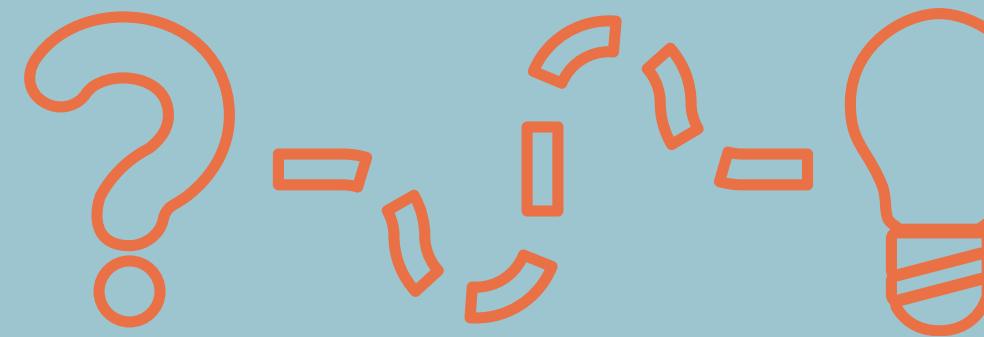
cliente



Problema a la hora de predecir los precios de las viviendas: **Poca experiencia en el mercado**

reto

2. Modelo de Machine Learning

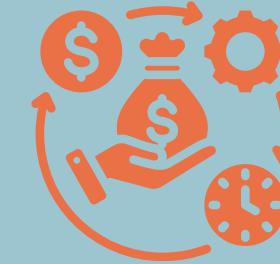


Modelo de Machine Learning de **predicción de**
precios de casas prefabricadas

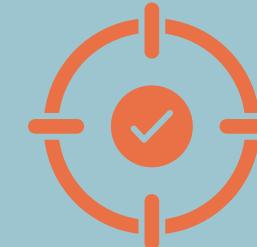
2. Modelo de Machine Learning



Ventaja competitiva



Ahorro en coste y tiempo



Precisión de la fijación
de precios



Reducción de incertidumbres



Personalización de
ofertas



Patrones de compras



Predicción de demandas



Atractivo para nuevos
clientes



Precios claros y
personalizados



2. Modelo de Machine Learning



Obtención de los datos

Web Scraping



375 datos

The screenshot shows the homepage of FACILHOUSE, a platform for finding prefabricated houses. At the top, there are filters for 'Hormigón', 'Madera', 'Acero', and 'Más'. Below the header, there's a grid of categories: Casas de Hormigón (with a truck icon), Casas de Madera (with a wavy line icon), Casas de Acero (with a steel beam icon), Casas Modulares (with a puzzle piece icon); Minicasas (with a small house icon labeled MAX 50m²), Casas Móviles (with a truck icon), Casas Pasivas (with a leaf icon), and Fabricantes (with a person icon). A dropdown menu 'Ordenar:' is set to 'Destacadas primero'. On the right, a detailed listing for a wooden house is shown: 'Kevät' (House Type), 'Desde 249.900 €' (Price), '3 habitaciones, 2 baños, 179 m² | Madera' (Description), 'Forest House' (Company), with buttons for 'Ver tel.', 'WhatsApp', and 'Contactar'.

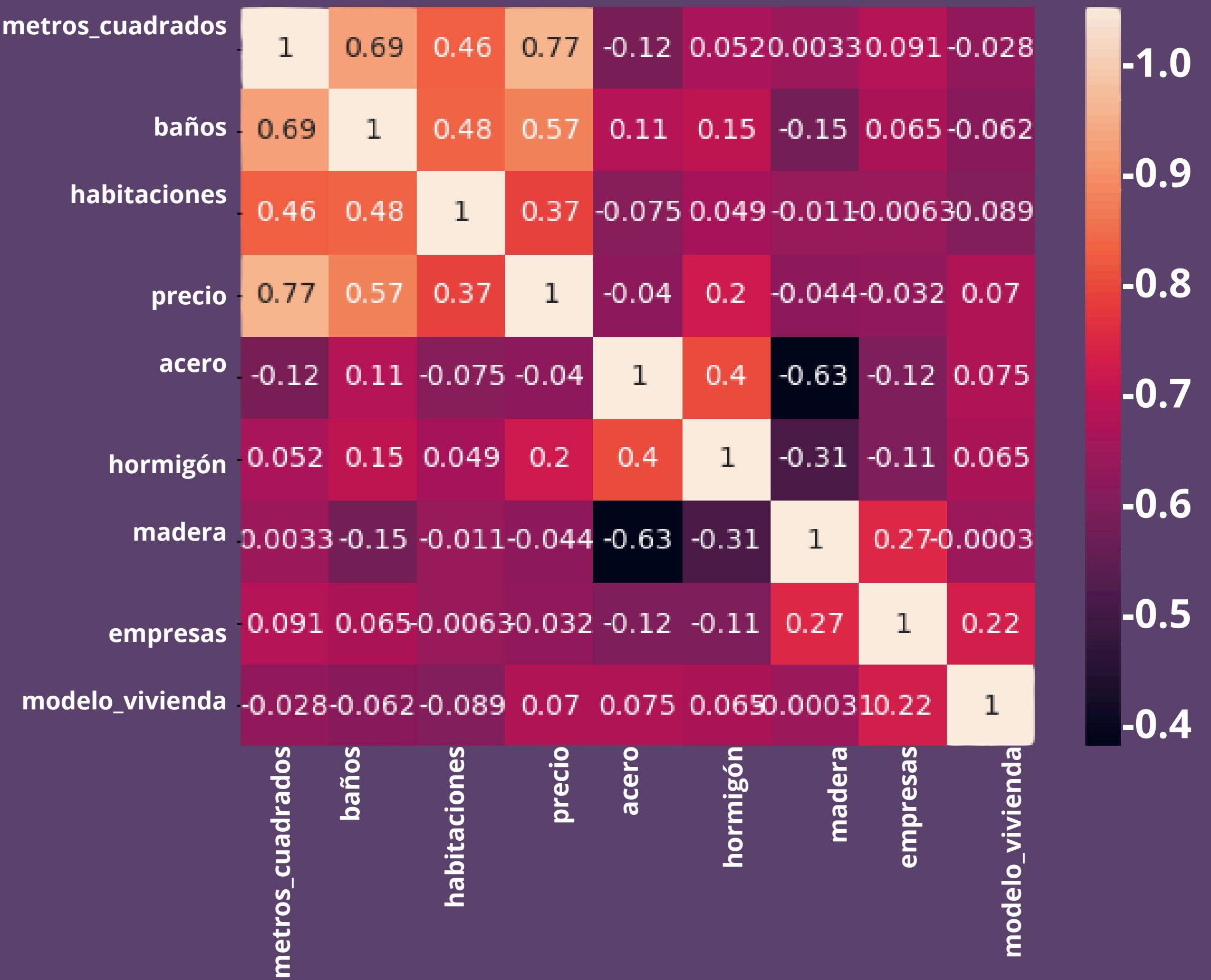
2. Modelo de Machine Learning



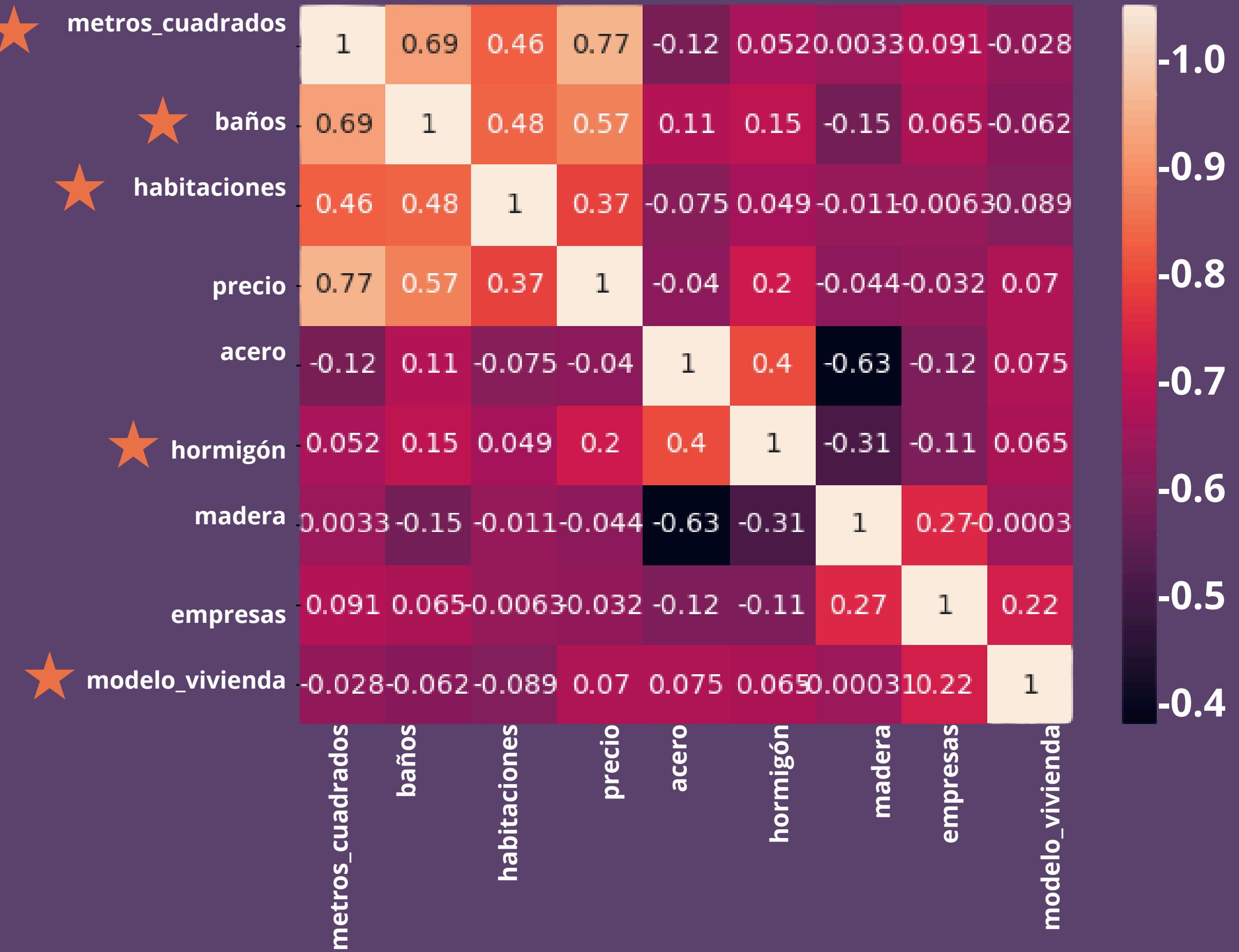
3. Análisis y conclusiones



3. Análisis y conclusiones



3. Análisis y conclusiones



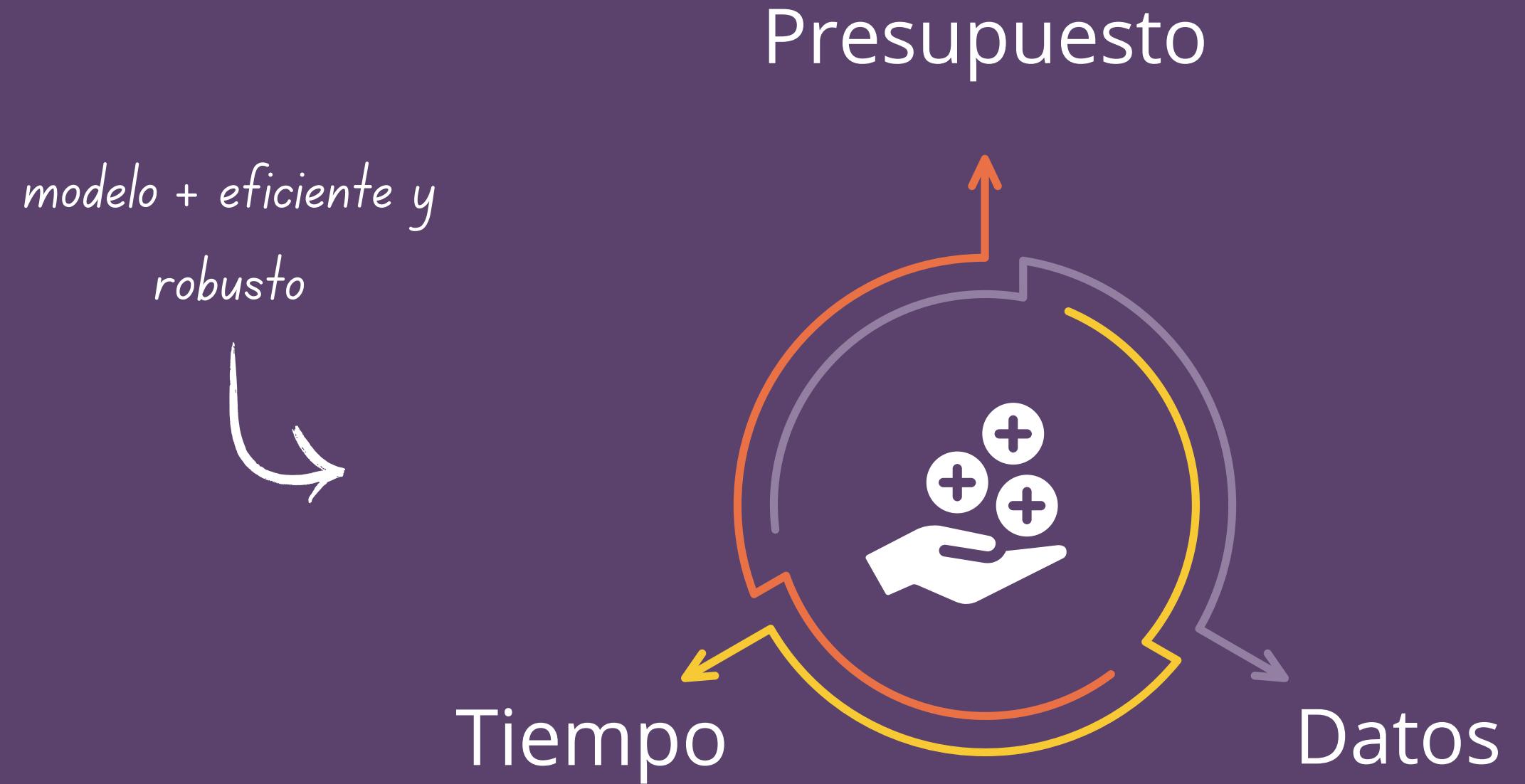
3. Análisis y conclusiones

MODELOS DE MACHINE LEARNING	R2	MAE
RANDOM FOREST	0.61	41.726.76
XGBOOST	0.65	36.924.00
SVM	-0.10	85.481.20

modelo escogido



3. Análisis y conclusiones



4. Aplicación

Establece el precio de tus viviendas prefabricadas aquí



For EcoHabitat

Bienvenido a tu aplicación online para establecer los precios de viviendas prefabricadas de EcoHabitat, esta herramienta te ayudará a establecer los precios de forma sencilla y eficaz basándose en un modelo de Machine Learning de predicción de precios de viviendas. ¡Vamos a ello!

Metros cuadrados:

Número de baños:

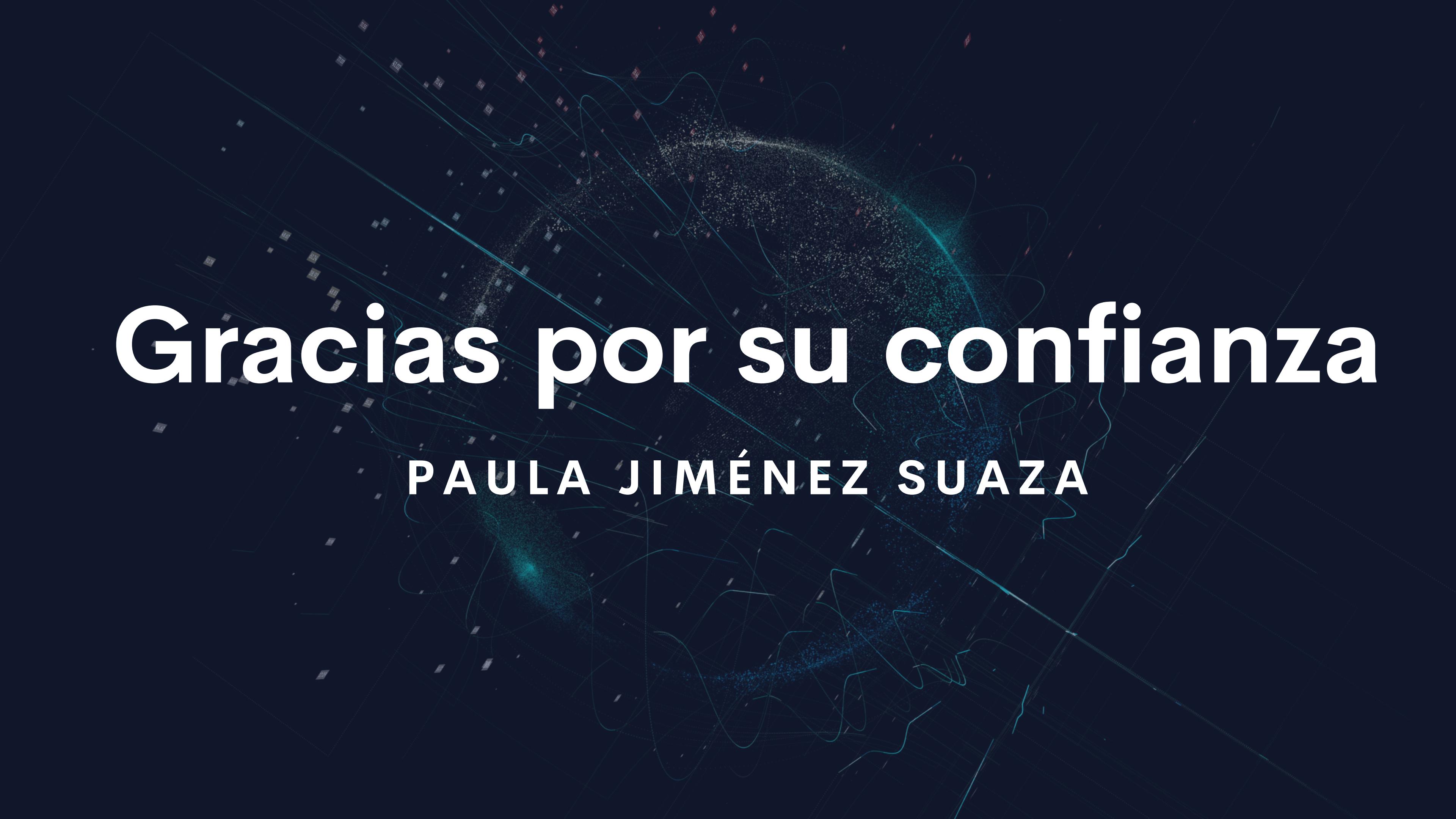
Número de habitaciones:

¿Contiene hormigón? Indique (0) si es no, (1) si es sí:

Indique el modelo de vivienda mediante números (mirar tabla de contenidos):

Haz tu predicción aquí



The background features a dark blue gradient with a subtle grid pattern. Overlaid on this are numerous thin, glowing cyan lines that form a network of paths or trajectories, resembling light trails from distant stars. Scattered throughout the space are small, semi-transparent cyan squares containing various numbers, such as 715, 714, 713, 712, 711, 710, 709, 708, 707, 706, 705, 704, 703, 702, 701, 700, 699, 698, 697, 696, 695, 694, 693, 692, 691, 690, 689, 688, 687, 686, 685, 684, 683, 682, 681, 680, 679, 678, 677, 676, 675, 674, 673, 672, 671, 670, 669, 668, 667, 666, 665, 664, 663, 662, 661, 660, 659, 658, 657, 656, 655, 654, 653, 652, 651, 650, 649, 648, 647, 646, 645, 644, 643, 642, 641, 640, 639, 638, 637, 636, 635, 634, 633, 632, 631, 630, 629, 628, 627, 626, 625, 624, 623, 622, 621, 620, 619, 618, 617, 616, 615, 614, 613, 612, 611, 610, 609, 608, 607, 606, 605, 604, 603, 602, 601, 600, 599, 598, 597, 596, 595, 594, 593, 592, 591, 590, 589, 588, 587, 586, 585, 584, 583, 582, 581, 580, 579, 578, 577, 576, 575, 574, 573, 572, 571, 570, 569, 568, 567, 566, 565, 564, 563, 562, 561, 560, 559, 558, 557, 556, 555, 554, 553, 552, 551, 550, 549, 548, 547, 546, 545, 544, 543, 542, 541, 540, 539, 538, 537, 536, 535, 534, 533, 532, 531, 530, 529, 528, 527, 526, 525, 524, 523, 522, 521, 520, 519, 518, 517, 516, 515, 514, 513, 512, 511, 510, 509, 508, 507, 506, 505, 504, 503, 502, 501, 500, 499, 498, 497, 496, 495, 494, 493, 492, 491, 490, 489, 488, 487, 486, 485, 484, 483, 482, 481, 480, 479, 478, 477, 476, 475, 474, 473, 472, 471, 470, 469, 468, 467, 466, 465, 464, 463, 462, 461, 460, 459, 458, 457, 456, 455, 454, 453, 452, 451, 450, 449, 448, 447, 446, 445, 444, 443, 442, 441, 440, 439, 438, 437, 436, 435, 434, 433, 432, 431, 430, 429, 428, 427, 426, 425, 424, 423, 422, 421, 420, 419, 418, 417, 416, 415, 414, 413, 412, 411, 410, 409, 408, 407, 406, 405, 404, 403, 402, 401, 400, 399, 398, 397, 396, 395, 394, 393, 392, 391, 390, 389, 388, 387, 386, 385, 384, 383, 382, 381, 380, 379, 378, 377, 376, 375, 374, 373, 372, 371, 370, 369, 368, 367, 366, 365, 364, 363, 362, 361, 360, 359, 358, 357, 356, 355, 354, 353, 352, 351, 350, 349, 348, 347, 346, 345, 344, 343, 342, 341, 340, 339, 338, 337, 336, 335, 334, 333, 332, 331, 330, 329, 328, 327, 326, 325, 324, 323, 322, 321, 320, 319, 318, 317, 316, 315, 314, 313, 312, 311, 310, 309, 308, 307, 306, 305, 304, 303, 302, 301, 300, 299, 298, 297, 296, 295, 294, 293, 292, 291, 290, 289, 288, 287, 286, 285, 284, 283, 282, 281, 280, 279, 278, 277, 276, 275, 274, 273, 272, 271, 270, 269, 268, 267, 266, 265, 264, 263, 262, 261, 260, 259, 258, 257, 256, 255, 254, 253, 252, 251, 250, 249, 248, 247, 246, 245, 244, 243, 242, 241, 240, 239, 238, 237, 236, 235, 234, 233, 232, 231, 230, 229, 228, 227, 226, 225, 224, 223, 222, 221, 220, 219, 218, 217, 216, 215, 214, 213, 212, 211, 210, 209, 208, 207, 206, 205, 204, 203, 202, 201, 200, 199, 198, 197, 196, 195, 194, 193, 192, 191, 190, 189, 188, 187, 186, 185, 184, 183, 182, 181, 180, 179, 178, 177, 176, 175, 174, 173, 172, 171, 170, 169, 168, 167, 166, 165, 164, 163, 162, 161, 160, 159, 158, 157, 156, 155, 154, 153, 152, 151, 150, 149, 148, 147, 146, 145, 144, 143, 142, 141, 140, 139, 138, 137, 136, 135, 134, 133, 132, 131, 130, 129, 128, 127, 126, 125, 124, 123, 122, 121, 120, 119, 118, 117, 116, 115, 114, 113, 112, 111, 110, 109, 108, 107, 106, 105, 104, 103, 102, 101, 100, 99, 98, 97, 96, 95, 94, 93, 92, 91, 90, 89, 88, 87, 86, 85, 84, 83, 82, 81, 80, 79, 78, 77, 76, 75, 74, 73, 72, 71, 70, 69, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0, -1, -2, -3, -4, -5, -6, -7, -8, -9, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -64, -65, -66, -67, -68, -69, -70, -71, -72, -73, -74, -75, -76, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -1010, -1011, -1012, -1013, -1014, -1015, -1016, -1017, -1018, -1019, -10100, -10101, -10102, -10103, -10104, -10105, -10106, -10107, -10108, -10109, -101010, -101011, -101012, -101013, -101014, -101015, -101016, -101017, -101018, -101019, -1010100, -1010101, -1010102, -1010103, -1010104, -1010105, -1010106, -1010107, -1010108, -1010109, -10101010, -10101011, -10101012, -10101013, -10101014, -10101015, -10101016, -10101017, -10101018, -10101019, -101010100, -101010101, -101010102, -101010103, -101010104, -101010105, -101010106, -101010107, -101010108, -101010109, -1010101010, -1010101011, -1010101012, -1010101013, -1010101014, -1010101015, -1010101016, -1010101017, -1010101018, -1010101019, -10101010100, -10101010101, -10101010102, -10101010103, -10101010104, -10101010105, -10101010106, -10101010107, -10101010108, -10101010109, -101010101010, -101010101011, -101010101012, -101010101013, -101010101014, -101010101015, -101010101016, -101010101017, -101010101018, -101010101019, -1010101010100, -1010101010101, -1010101010102, -1010101010103, -1010101010104, -1010101010105, -1010101010106, -1010101010107, -1010101010108, -1010101010109, -10101010101010, -10101010101011, -10101010101012, -10101010101013, -10101010101014, -10101010101015, -10101010101016, -10101010101017, -10101010101018, -10101010101019, -101010101010100, -101010101010101, -101010101010102, -101010101010103, -101010101010104, -101010101010105, -101010101010106, -101010101010107, -101010101010108, -101010101010109, -1010101010101010, -1010101010101011, -1010101010101012, -1010101010101013, -1010101010101014, -1010101010101015, -1010101010101016, -1010101010101017, -1010101010101018, -1010101010101019, -10101010101010100, -10101010101010101, -10101010101010102, -10101010101010103, -10101010101010104, -10101010101010105, -10101010101010106, -10101010101010107, -10101010101010108, -10101010101010109, -101010101010101010, -101010101010101011, -101010101010101012, -101010101010101013, -101010101010101014, -101010101010101015, -101010101010101016, -101010101010101017, -101010101010101018, -101010101010101019, -1010101010101010100, -1010101010101010101, -1010101010101010102, -1010101010101010103, -1010101010101010104, -1010101010101010105, -1010101010101010106, -1010101010101010107, -1010101010101010108, -1010101010101010109, -10101010101010101010, -10101010101010101011, -10101010101010101012, -10101010101010101013, -10101010101010101014, -10101010101010101015, -10101010101010101016, -10101010101010101017, -10101010101010101018, -10101010101010101019, -101010101010101010100, -101010101010101010101, -101010101010101010102, -101010101010101010103, -101010101010101010104, -101010101010101010105, -101010101010101010106, -101010101010101010107, -101010101010101010108, -101010101010101010109, -1010101010101010101010, -1010101010101010101011, -1010101010101010101012, -1010101010101010101013, -1010101010101010101014, -1010101010101010101015, -1010101010101010101016, -1010101010101010101017, -1010101010101010101018, -1010101010101010101019, -10101010101010101010100, -10101010101010101010101, -10101010101010101010102, -10101010101010101010103, -10101010101010101010104, -10101010101010101010105, -10101010101010101010106, -10101010101010101010107, -10101010101010101010108, -10101010101010101010109, -101010101010101010101010, -101010101010101010101011, -101010101010101010101012, -101010101010101010101013, -101010101010101010101014, -101010101010101010101015, -101010101010101010101016, -101010101010101010101017, -101010101010101010101018, -101010101010101010101019, -1010101010101010101010100, -1010101010101010101010101, -1010101010101010101010102, -1010101010101010101010103, -1010101010101010101010104, -1010101010101010101010105, -1010101010101010101010106, -1010101010101010101010107, -1010101010101010101010108, -1010101010101010101010109, -10101010101010101010101010, -10101010101010101010101011, -10101010101010101010101012, -10101010101010101010101013, -101