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- [1] “Get to Know the Top Three Health Goals That Increase Health Conscious Asia Pacific Consumers | Herbalife APAC,” Herbalife. Accessed: Jun. 17, 2025. [Online]. Available: <https://www.herbalife.com/en-id/about-herbalife/press-room/press-releases/2023-asia-pacific-health-priority-survey>
- [2] A. Akdeniz Kudubes, D. Ayar, İ. Bektas, and M. Bektas, “Predicting the effect of healthy lifestyle belief on attitude toward nutrition, exercise, physical activity, and weight-related self-efficacy in Turkish adolescents,” *Arch. Pédiatrie*, vol. 29, no. 1, pp. 44–50, Jan. 2022, doi: 10.1016/j.arcped.2021.11.001.
- [3] E. L. S. Setianingrum, K. Lidia, M. Riwu, and T. D. Hapsoro, *Hidup Sehat, Jantung Kuat: Atasi Inflamasi untuk Mencegah Penyakit Jantung*. Penerbit NEM, 2024.
- [4] M. Rozmiarek, “The Role of Nutrition in Maintaining the Health and Physical Condition of Sports Volunteers,” *Nutrients*, vol. 16, no. 19, Art. no. 19, Jan. 2024, doi: 10.3390/nu16193336.
- [5] J. Kang, R. C. Me, and K. M. Kamarudin, “A healthy lifestyle persuasive design model based on behavioral analysis,” *Learn. Motiv.*, vol. 87, p. 102021, Aug. 2024, doi: 10.1016/j.lmot.2024.102021.
- [6] “Noncommunicable diseases - SEARO.” Accessed: Jul. 19, 2025. [Online]. Available: <https://www.who.int/southeastasia/health-topics/noncommunicable-diseases>
- [7] D. C. Noronha *et al.*, “Nutrition Knowledge is Correlated with a Better Dietary Intake in Adolescent Soccer Players: A Cross-Sectional Study,” *J. Nutr. Metab.*, vol. 2020, p. 3519781, Jan. 2020, doi: 10.1155/2020/3519781.
- [8] B. Cottrell, X. Qu, M. Anwar, and P. Hines, *A Mixed Integer Linear Programming Model for Personalized Meal Recommendations to African-American Students*. 2019.
- [9] K. M. Relekar, S. Dattatray Bobalade, S. S. Mulik, S. Tukaram Kengar, and R. M. Goudar, “Food Recommendation System Using K-means Clustering and Random Forest Algorithm,” in *2023 Global Conference on Information Technologies and Communications (GCITC)*, Dec. 2023, pp. 1–7. doi: 10.1109/GCITC60406.2023.10426098.
- [10] “Home,” Health Promotion Board. Accessed: Mar. 11, 2025. [Online]. Available: <https://hpb.gov.sg/home>
- [11] K. M. Jiwandaru, “SISTEM REKOMENDASI MENU DIET BERBASIS PROFIL PENGGUNA DENGAN MULTI-CRITERIA CONTENT-BASED FILTERING (MCCBF) DAN COSINE SIMILARITY,” 2024.
- [12] L. Z. Almas, Y. Susanti, and S. S. Handajani, “Penerapan Algoritma K-Nearest Neighbors dalam Sistem Rekomendasi Makanan Berdasarkan Kebutuhan Nutrisi dengan Content-Based Filtering,” *Statistika*, vol. 24, no. 1, Art. no. 1, May 2024, doi: 10.29313/statistika.v24i1.3558.
- [13] T. Nugroho, U. Enri, and I. Maulana, “CLUSTERING MENU MAKANAN BERDASARKAN KEBUTUHAN KALORI HARIAN MENGGUNAKAN

- ALGORITME K-MEANS,” *JATI J. Mhs. Tek. Inform.*, vol. 8, no. 4, pp. 4411–4417, Jun. 2024, doi: 10.36040/jati.v8i4.9958.
- [14] M. Irshad Ahmad, M. Priyadarshini Behera, K. Singh, K. Tiwary, P. Rupsa, and S. Darshana, “Personalized Dietary Recommendations for Health and Disease Prevention,” in *2024 IEEE 4th International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC)*, Nov. 2024, pp. 1–6. doi: 10.1109/AESPC63931.2024.10872142.
- [15] R. Yera Toledo, A. A. Alzahrani, and L. Martínez, “A Food Recommender System Considering Nutritional Information and User Preferences,” *IEEE Access*, vol. 7, pp. 96695–96711, 2019, doi: 10.1109/ACCESS.2019.2929413.
- [16] L. Liu *et al.*, “An interactive food recommendation system using reinforcement learning,” *Expert Syst. Appl.*, vol. 254, p. 124313, Nov. 2024, doi: 10.1016/j.eswa.2024.124313.
- [17] J. Zhang, M. Li, W. Liu, S. Lauria, and X. Liu, “Many-objective optimization meets recommendation systems: A food recommendation scenario,” *Neurocomputing*, vol. 503, pp. 109–117, Sep. 2022, doi: 10.1016/j.neucom.2022.06.081.
- [18] Y. F. Lo, F. Fernandi, H. A. Saputri, and A. C. Sari, “Optimizing the Use of Technology in Efforts to Improve Public Health, Especially with Appropriate Food Calorie Intake,” *Procedia Comput. Sci.*, vol. 245, pp. 419–428, Jan. 2024, doi: 10.1016/j.procs.2024.10.268.
- [19] J. Zhang, M. Li, W. Liu, S. Lauria, and X. Liu, “Many-objective optimization meets recommendation systems: A food recommendation scenario,” *Neurocomputing*, vol. 503, pp. 109–117, Sep. 2022, doi: 10.1016/j.neucom.2022.06.081.
- [20] Y. F. Lo, F. Fernandi, H. A. Saputri, and A. C. Sari, “Optimizing the Use of Technology in Efforts to Improve Public Health, Especially with Appropriate Food Calorie Intake,” *Procedia Comput. Sci.*, vol. 245, pp. 419–428, Jan. 2024, doi: 10.1016/j.procs.2024.10.268.
- [21] L. M. Carrizales, L. W. Vilca, C. Santiago-Vizcarra, Y. S. Fernández, and T. Caycho-Rodríguez, “Impact of healthy lifestyles on mental health indicators in adolescents after the COVID-19 pandemic,” *Ment. Health Prev.*, vol. 36, p. 200371, Dec. 2024, doi: 10.1016/j.mhp.2024.200371.
- [22] G. Savarino, A. Corsello, and G. Corsello, “Macronutrient balance and micronutrient amounts through growth and development,” *Ital. J. Pediatr.*, vol. 47, p. 109, May 2021, doi: 10.1186/s13052-021-01061-0.
- [23] M. H. Stipanuk and M. A. Caudill, *Biochemical, Physiological, and Molecular Aspects of Human Nutrition - E-Book: Biochemical, Physiological, and Molecular Aspects of Human Nutrition - E-Book*. Elsevier Health Sciences, 2018.
- [24] S. Espinosa-Salas and M. Gonzalez-Arias, “Nutrition: Macronutrient Intake, Imbalances, and Interventions,” in *StatPearls*, Treasure Island (FL): StatPearls Publishing, 2025. Accessed: Feb. 28, 2025. [Online]. Available: <http://www.ncbi.nlm.nih.gov/books/NBK594226/>

- [25] E. K. Woolf, H. E. Cabre, A. N. Niclou, and L. M. Redman, "Body Weight Regulation," in *Endotext [Internet]*, MDText.com, Inc., 2024. Accessed: Feb. 28, 2025. [Online]. Available: <https://www.ncbi.nlm.nih.gov/sites/books/NBK278932/>
- [26] Y.-J. Kwon, H. S. Lee, J.-Y. Park, and J.-W. Lee, "Associating Intake Proportion of Carbohydrate, Fat, and Protein with All-Cause Mortality in Korean Adults," *Nutrients*, vol. 12, no. 10, p. 3208, Oct. 2020, doi: 10.3390/nu12103208.
- [27] "Maintain a Healthy Weight." Accessed: Jul. 03, 2025. [Online]. Available: https://www.nhlbi.nih.gov/health/educational/lose_wt/index.htm
- [28] D. Khanna, C. Peltzer, P. Kahar, and M. S. Parmar, "Body Mass Index (BMI): A Screening Tool Analysis," *Cureus*, vol. 14, no. 2, p. e22119, doi: 10.7759/cureus.22119.
- [29] L. Ning, C. He, C. Lu, W. Huang, T. Zeng, and Q. Su, "Association between basal metabolic rate and cardio-metabolic risk factors: Evidence from a Mendelian Randomization study," *Heliyon*, vol. 10, no. 7, p. e28154, Apr. 2024, doi: 10.1016/j.heliyon.2024.e28154.
- [30] K. Van Dessel *et al.*, "Basal metabolic rate using indirect calorimetry among individuals living with overweight or obesity: The accuracy of predictive equations for basal metabolic rate," *Clin. Nutr. ESPEN*, vol. 59, pp. 422–435, Feb. 2024, doi: 10.1016/j.clnesp.2023.12.024.
- [31] H. F. Program, "Food Allergies: What You Need to Know," *FDA*, Feb. 2025, Accessed: Feb. 28, 2025. [Online]. Available: <https://www.fda.gov/food/buy-store-serve-safe-food/food-allergies-what-you-need-know>
- [32] J. M. Hess, M. E. Comeau, J. L. Smith, K. Swanson, and C. M. Anderson, "Vegetarian Diets During Pregnancy: With Supplementation, Ovo-Vegetarian, Lacto-Vegetarian, Vegan, and Pescatarian Adaptations of US Department of Agriculture Food Patterns Can Be Nutritionally Adequate," *J. Acad. Nutr. Diet.*, vol. 125, no. 2, pp. 204-216.e17, Feb. 2025, doi: 10.1016/j.jand.2024.08.001.
- [33] Y. Afoudi, M. Lazaar, and M. Al Achhab, "Hybrid recommendation system combined content-based filtering and collaborative prediction using artificial neural network," *Simul. Model. Pract. Theory*, vol. 113, p. 102375, Dec. 2021, doi: 10.1016/j.simpat.2021.102375.
- [34] T. Ridwansyah, B. Subartini, and S. Sylviani, "Penerapan Metode Content-Based Filtering pada Sistem Rekomendasi," *Math. Sci. Appl. J.*, vol. 4, no. 2, pp. 70–77, Apr. 2024, doi: 10.22437/msa.v4i2.32136.
- [35] A. Chaudhari, A. A. Hitham Seddig, A. Sarlan, and R. Raut, "A Hybrid Recommendation System: A Review," *IEEE Access*, vol. 12, pp. 157107–157126, 2024, doi: 10.1109/ACCESS.2024.3480693.
- [36] H. Ko, S. Lee, Y. Park, and A. Choi, "A Survey of Recommendation Systems: Recommendation Models, Techniques, and Application Fields," *Electronics*, vol. 11, no. 1, Art. no. 1, Jan. 2022, doi: 10.3390/electronics11010141.
- [37] V. Rupapara, F. Rustam, H. F. Shahzad, A. Mehmood, I. Ashraf, and G. S. Choi, "Impact of SMOTE on Imbalanced Text Features for Toxic Comments

- Classification Using RVVC Model,” *IEEE Access*, vol. 9, pp. 78621–78634, 2021, doi: 10.1109/ACCESS.2021.3083638.
- [38] H. Khatteer, N. Goel, N. Gupta, and M. Gulati, “Movie Recommendation System using Cosine Similarity with Sentiment Analysis,” in *2021 Third International Conference on Inventive Research in Computing Applications (ICIRCA)*, Sep. 2021, pp. 597–603. doi: 10.1109/ICIRCA51532.2021.9544794.
- [39] N. Sureja, B. Chawda, and A. Vasant, “An improved K-medoids clustering approach based on the crow search algorithm,” *J. Comput. Math. Data Sci.*, vol. 3, p. 100034, Jun. 2022, doi: 10.1016/j.jcmds.2022.100034.
- [40] K. Vanessa, I. A. Iswanto, K. Wijaya, and M. F. Hidayat, “Comparing K-Means and DBSCAN Algorithms for Clustering Poverty Levels in Papua Islands,” in *2024 9th International Conference on Information Technology and Digital Applications (ICITDA)*, Nov. 2024, pp. 1–6. doi: 10.1109/ICITDA64560.2024.10810077.
- [41] M. K. Islam, M. S. Ali, M. S. Miah, M. M. Rahman, M. S. Alam, and M. A. Hossain, “Brain tumor detection in MR image using superpixels, principal component analysis and template based K-means clustering algorithm,” *Mach. Learn. Appl.*, vol. 5, p. 100044, Sep. 2021, doi: 10.1016/j.mlwa.2021.100044.
- [42] W. Jia, M. Sun, J. Lian, and S. Hou, “Feature dimensionality reduction: a review,” *Complex Intell. Syst.*, vol. 8, no. 3, pp. 2663–2693, Jun. 2022, doi: 10.1007/s40747-021-00637-x.
- [43] M. Chaudhry, I. Shafi, M. Mahnoor, D. L. R. Vargas, E. B. Thompson, and I. Ashraf, “A Systematic Literature Review on Identifying Patterns Using Unsupervised Clustering Algorithms: A Data Mining Perspective,” *Symmetry*, vol. 15, no. 9, Art. no. 9, Sep. 2023, doi: 10.3390/sym15091679.
- [44] Y. Deng, H. Albidah, H. Cheng, A. Dallal, J. Yin, and Z.-H. Mao, “UMAP for Dimensionality Reduction in Sleep Stage Classification Using EEG Data,” in *2024 46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Jul. 2024, pp. 1–4. doi: 10.1109/EMBC53108.2024.10782097.
- [45] R. Ganian and S. Ordyniak, “Solving Integer Linear Programs by Exploiting Variable-Constraint Interactions: A Survey,” *Algorithms*, vol. 12, no. 12, Art. no. 12, Dec. 2019, doi: 10.3390/a12120248.
- [46] I. Daniyan, S. P. Ayodeji, F. Ale, A. Adeodu, and K. Mpofo, “Development of a Linear Integer Programming Model for Solving Cutting Stock Problem in the Manufacturing Industry,” *Procedia CIRP*, vol. 126, pp. 390–395, Jan. 2024, doi: 10.1016/j.procir.2024.08.382.
- [47] M. Shutaywi and N. N. Kachouie, “Silhouette Analysis for Performance Evaluation in Machine Learning with Applications to Clustering,” *Entropy*, vol. 23, no. 6, Art. no. 6, Jun. 2021, doi: 10.3390/e23060759.
- [48] F. Ros, R. Riad, and S. Guillaume, “PDBI: A partitioning Davies-Bouldin index for clustering evaluation,” *Neurocomputing*, vol. 528, pp. 178–199, Apr. 2023, doi: 10.1016/j.neucom.2023.01.043.

- [49] P. A. Syafira, N. Yudistira, and D. Kurnianingtyas, "Chest X-Ray Images Clustering Using Convolutional Autoencoder for Lung Disease Detection".
- [50] E. Prasetyo, N. Suciati, C. Fatichah, Aminin, and E. Pardede, "Standardizing the fish freshness class during ice storage using clustering approach," *Ecol. Inform.*, vol. 80, p. 102533, May 2024, doi: 10.1016/j.ecoinf.2024.102533.
- [51] A. A. Rasheed, "Improving prediction efficiency by revolutionary machine learning models," *Mater. Today Proc.*, vol. 81, pp. 577–583, Jan. 2023, doi: 10.1016/j.matpr.2021.04.014.
- [52] H. Wang, Y. Zhang, and X. Fu, "Innovative Applications of Black Box Testing: A New Strategy for Teaching Assessment in Higher Education," *IEEE Access*, vol. 13, pp. 90514–90526, 2025, doi: 10.1109/ACCESS.2025.3568825.
- [53] C. S. Chai, I. Hipiny, and H. Ujir, "User Acceptance Testing (UAT) of Self-Service Checkout Kiosks: A Case Study in E-Mart Tabuan Jaya, Kuching, Malaysia," in *2023 IEEE 7th International Conference on Information Technology, Information Systems and Electrical Engineering (ICITISEE)*, Nov. 2023, pp. 6–11. doi: 10.1109/ICITISEE58992.2023.10405247.
- [54] S. M. N. S. K. Seneviratne, V. Penenco, and D. Kasthurirathna, "AD-PU: A Novel Approach for Automated Identification of the Outliers in User Interface Testing (UAT)," in *2023 IEEE AUTOTESTCON*, Aug. 2023, pp. 1–5. doi: 10.1109/AUTOTESTCON47464.2023.10296279.
- [55] N. A. Vanesha, R. Rizky, and A. Purwanto, "Comparison Between Usability and User Acceptance Testing on Educational Game Assessment," *J. Sisfokom Sist. Inf. Dan Komput.*, vol. 13, no. 2, pp. 210–215, Jun. 2024, doi: 10.32736/sisfokom.v13i2.2099.
- [56] T. E. Suherman, M. H. Widiyanto, and Z. Athalia, "Internet of Things System for Freshwater Fish Aquarium Monitoring and Automation Using Iterative Waterfall," in *2022 4th International Conference on Cybernetics and Intelligent System (ICORIS)*, Oct. 2022, pp. 1–6. doi: 10.1109/ICORIS56080.2022.10031310.
- [57] M. O. Kadang, *Algoritma dan Pemrograman: Buku Bahan Ajar*. Humanities Genius, 2021.
- [58] "Information processing - Documentation symbols and conventions for data, program and system flowcharts, program network charts and system resources charts." [Online]. Available: <https://cdn.standards.iteh.ai/samples/11955/1b7dd254a2a54fd7a89d616dc0570e18/ISO-5807-1985.pdf>
- [59] N. F. Setiyawan, Y. Priyadi, and W. Astuti, "Development of Class Diagrams Based on Use Case, and Sequence Diagrams Using a Text Mining Approach in SRS Penguin," in *2023 IEEE World AI IoT Congress (AIIoT)*, Jun. 2023, pp. 0070–0076. doi: 10.1109/AIIoT58121.2023.10174287.
- [60] "IBM DevOps Model Architect." Accessed: Jul. 20, 2025. [Online]. Available: <https://www.ibm.com/docs/en/dma?topic=diagrams-subsystems>
- [61] V. Verma and V. Arora, "A novel approach for automatic test sequence generation for java fork/join from activity diagram," in *2014 IEEE International Conference on Advanced Communications, Control and*

- Computing Technologies*, May 2014, pp. 1611–1615. doi: 10.1109/ICACCCT.2014.7019381.
- [62] J. L. Harrington, *Relational Database Design and Implementation*. Morgan Kaufmann, 2016.
- [63] “Energy & Nutrient Composition Search.” Accessed: Jun. 25, 2025. [Online]. Available: <https://focos.hpb.gov.sg/eservices/ENCF/>
- [64] P. L. Q. Yeo, X. Bi, M. T. Y. Yeo, and C. J. Henry, “Energy Content and Nutrient Profiles of Frequently Consumed Meals in Singapore,” *Foods*, vol. 10, no. 7, p. 1659, Jul. 2021, doi: 10.3390/foods10071659.
- [65] E. Alshdaifat, D. Alshdaifat, A. Alsarhan, F. Hussein, and S. M. F. S. El-Salhi, “The Effect of Preprocessing Techniques, Applied to Numeric Features, on Classification Algorithms’ Performance,” *Data*, vol. 6, no. 2, Art. no. 2, Feb. 2021, doi: 10.3390/data6020011.
- [66] K. Mallikharjuna Rao, G. Saikrishna, and K. Supriya, “Data preprocessing techniques: emergence and selection towards machine learning models - a practical review using HPA dataset,” *Multimed. Tools Appl.*, vol. 82, no. 24, pp. 37177–37196, Oct. 2023, doi: 10.1007/s11042-023-15087-5.
- [67] C. Sena, R. Negri, and M. Gava, “GOES ABI-derived hailstorm polygons and tracking dataset for Brazil,” *Data Brief*, vol. 55, p. 110736, Jul. 2024, doi: 10.1016/j.dib.2024.110736.