

## **Read me**

Mother's Significant Feature dataset is a dataset with 450 records and 130 features, kindly read the below information to understand the content of dataset.

A set of three survey forms is filled for each of the 450 mother, these forms are named as following:

1\_Form\_Genral\_info.pdf

2\_Form\_Mother\_Features.pdf

3\_Form\_Pregnancy\_Outcome.pdf

Details about the categories selected for categorial attributes is given in the forms.

There are total of 6 excel sheets submitted which are as following:

1. MSF\_Dataset\_Complete.xlsx (All the 130 attributes for 1000 records)
  2. MSF\_Physical&health\_Fetaures.xlsx (Consists of Physical and Health related attributes)
  3. MSF\_Mother\_lifestyle.xlsx (Consists of mother lifestyle related attributes)
  4. MSF\_Mother\_Social.xlsx (Consists of mother social status related attributes)
  5. MSF\_Mother\_stress.xlsx (Consists of mother stress level related attributes)
  6. MSF\_HealthOutcome.xlsx (Consists of outcomes associated with pregnancy and baby health)
- All the above mentioned dataset have a common primary attribute named as "Mother\_UID", which is unique for each woman interviewed during data collection process.
  - Records in all the 6 excel sheets provided with same Mother\_UID belongs to same woman.
  - In MSF dataset "1" denotes "yes/true" and "0" denotes "no/false".
  - Attributes with Missing values are mentioned below:
    1. Mother's Weight before delivery
    2. Miscarriage History
    3. Cravings
    4. Family Support
    5. Women supporting family
    6. Hobbies

Feature in MSF\_Physical&health\_Fetaures.xlsx

1. Age of Mother
2. Mother'sWeight before pregnancy
3. Mother'sWeight before Delivery
4. Height
5. BMI
6. Haemoglobin

7. PCOS (Polycystic ovary syndrome)
8. Age of Father
9. Infertility Treatment
10. Miscarriage History.
11. Menstrual Cycle (Before Marriage)
12. Menstrual Cycle (After Marriage)
13. Time taken to conceive
14. Thyroid
15. Hypertension
16. Gestational Diabetes
17. Gastric Issue
18. Cold/viral Infection
19. Low amniotic fluid
20. High Amniotic Fluid
21. No Health complication during pregnancy
22. IVF
23. Birth Parity

Feature in MSF\_Mother\_Social.xlsx

1. Years of marriage
2. Does new born have siblings
3. Number of new born's siblings
4. Mother Education Status
5. Family income
6. Hobbies (Visiting places)
7. Hobbies (Artistic things(Dance/singing/painting etc.))
8. Hobbies (Shopping )
9. Hobbies (Cooking/house hold work)
10. Hobbies (Spending time with people)
11. Hobbies (Eating / Foodie)
12. Hobbies (Sitting alone in peace)
13. Working till which month of pregnancy (During pregnancy)
14. Family support by (in-laws)
15. Family support by (parents)
16. Family support by (husband)
17. You supporting the family (in-laws)
18. You supporting the family (parents)
19. You supporting the family (other family members)

#### Feature in MSF\_Mother\_stress.xlsx

1. Travel time (During teenage)
2. Travel time ( After marriage)
3. Travel time (During pregnancy)
4. Hours at work (After marriage)
5. Hours at work (During pregnancy)
6. Stress Level at work/home (After marriage)
7. Stress Level at work/home (During pregnancy)
8. Happy about arrival of baby
9. Depression/loneliness (Before pregnancy )
10. Depression/loneliness (During pregnancy)

#### Feature in Mother\_Lifestyle.xlsx

1. Exercise (During teenage)
2. Exercise (After marriage)
3. Exercise (During pregnancy)
4. Use of laptop/mobile (During teenage)
5. Use of laptop/mobile (After marriage)
6. Use of laptop/mobile (During pregnancy)
7. Outside food habits (During teenage)
8. Outside food habits (After marriage)
9. Outside food habits (During pregnancy)
10. Tea/Coffee/Caffeine (During teenage)
11. Tea/Coffee/Caffeine (After marriage)
12. Tea/Coffee/Caffeine (During pregnancy)
13. Smoking (During teenage)
14. Smoking (After marriage)
15. Smoking (During pregnancy)
16. Alcohol (During teenage)
17. Alcohol (After marriage)
18. Alcohol (During pregnancy)
19. Noise/Air pollution (During teenage)
20. Noise/Air pollution (After marriage)
21. Noise/Air pollution (During pregnancy)
22. Health Conscious (During teenage)
23. Health Conscious (After marriage)

24. Health Conscious (During pregnancy)
25. Diet consists of grains, vegetables, pulses, rice, salad (During Teenage)
26. Diet consists of more of pulses and rice. (During Teenage)
27. Diet consists of more of dairy products. (During Teenage)
28. Diet consists of mostly snacks and high carbohydrate (During Teenage)
29. Diet consists of non vegetarian food (During Teenage)
30. Diet consists of Fruits and salads (During Teenage)
31. Diet consists of grains, vegetables, pulses, rice, salad (After Marriage)
32. Diet consists of more of pulses and rice. (After Marriage)
33. Diet consists of more of dairy products. (After Marriage)
34. Diet consists of mostly snacks and high carbohydrate (After Marriage)
35. Diet consists of non vegetarian food (After Marriage)
36. Diet consists of Fruits and salads (After Marriage)
37. Diet consists of grains, vegetables, pulses, rice, salad (During pregnancy)
38. Diet consists of more of pulses and rice (During pregnancy)
39. Diet consists of more of dairy products. (During pregnancy)
40. Diet consists of mostly snacks and high carbohydrate (During pregnancy)
41. Diet consists of non vegetarian food (During pregnancy)
42. Diet consists of Fruits and salads (During pregnancy)
43. Sleep Pattern (During Teenage) (Used to get up early in the morning )
44. Sleep Pattern (During Teenage) (More of a night person, used to be awake till late night )
45. Sleep Pattern (During Teenage) (Sleep more than 8 hours a day)
46. Sleep Pattern (During Teenage) (Sleep less than 7 hours a day)
47. Sleep Pattern (After marriage) (Used to get up early in the morning )
48. Sleep Pattern (After marriage) (More of a night person, used to be awake till late night )
49. Sleep Pattern (After marriage) (Sleep more than 8 hours a day)
50. Sleep Pattern (After marriage) (Sleep less than 7 hours a day)
51. Sleep Pattern (During Pregnancy) (Used to get up early in the morning )
52. Sleep Patter (During Pregnancy) (More of a night person, used to be awake till late night)
53. Sleep Pattern (During Pregnancy) (Sleep more than 8 hours a day)
54. Sleep Pattern (During Pregnancy) (Sleep less than 7 hours a day)
55. Exposure to morning sunlight (During teenage)
56. Exposure to morning sunlight (After marriage)
57. Exposure to morning sunlight (During pregnancy)
58. Travel Time (During teenage)
59. Travel Time (After marriage)
60. Travel Time (During pregnancy)
61. Mode of commutation (During teenage)
62. Mode of commutation (After marriage)
63. Mode of commutation (During pregnancy)
64. Works as (After marriage)

65. Works as (During pregnancy)
66. Use of Contraceptive (How long)
67. Type of contraceptive used (Before pregnancy)
68. Intercourse frequency
69. Craving
70. Carving
71. Craving

Feature in MSF\_HealthOutcome.xlsx

1. Pre term birth
2. Full term birth
3. Weight of baby/babies
4. Number of days in hospital just after childbirth
5. NICU stay requirement
6. Jaundice detected in baby after birth
7. C-section delivery
8. Vaginal Delivery
9. Hours in labour before childbirth
10. Need to induce artificial pain for labour

This dataset is designed so that researchers can experiment with different combination of features to analyse woman and child's health.

This dataset has been used in the following research papers:

1. Deshpande H., Ragha L., (*in press*). A Hybrid Random Forest based Feature selection model using Mutual Information and F-score for Preterm birth classification., International Journal of Medical Engineering and Informatics.
2. Deshpande H., Ragha L., (*in press*). Random forest based Fuzzy Feature weighing model for Imbalance class distribution towards Preterm-birth classification , SSRN-Elsevier's Online Digital Publication under ICAST-2021 Conference Proceedings.