Table Creation Scripts:

1. CREATE TABLE OWNER
2. (
3. country VARCHAR2(50) NOT NULL,
4. companyname VARCHAR2(50) NOT NULL,
5. classification VARCHAR2(50)
6. )
7. tablespace USERS
8. PCTFREE 10
9. initrans 1
10. maxtrans 255;
11. *-- Create/Recreate primary, unique and foreign key constraints*
12. ALTER TABLE OWNER
13. add constraint COUNTRY primary key (COUNTRY)
14. using INDEX
15. tablespace USERS
16. PCTFREE 10
17. initrans 2
18. maxtrans 255;
19. ALTER TABLE OWNER
20. add constraint COMPANYNAME UNIQUE (COMPANYNAME)
21. using INDEX
22. tablespace USERS
23. PCTFREE 10
24. initrans 2
25. maxtrans 255;
26. *-- Create table*
27. CREATE TABLE celestialBody
28. (
29. TYPE VARCHAR2(50),
30. name VARCHAR2(50) NOT NULL
31. )
32. ;
33. *-- Create/Recreate primary, unique and foreign key constraints*
34. ALTER TABLE celestialBody
35. add constraint name primary key (NAME);
37. *-- Create table*
38. CREATE TABLE SATELLITE
39. (
40. satname VARCHAR2(150) NOT NULL,
41. purpose VARCHAR2(50),
42. companyname VARCHAR2(50) NOT NULL,
43. ownercountry VARCHAR2(50)
44. )
45. *-- Create table*
46. CREATE TABLE VEHICLE
47. (
48. vehiclename VARCHAR2(50) NOT NULL,
49. id NUMBER NOT NULL,
50. ownercountry VARCHAR2(50) NOT NULL,
51. maxpayload NUMBER,
52. numlaunches NUMBER NOT NULL
53. )
54. tablespace USERS
55. PCTFREE 10
56. initrans 1
57. maxtrans 255;
58. *-- Create/Recreate primary, unique and foreign key constraints*
59. ALTER TABLE VEHICLE
60. add constraint ID primary key (ID)
61. using INDEX
62. tablespace USERS
63. PCTFREE 10
64. initrans 2
65. maxtrans 255;
66. ALTER TABLE VEHICLE
67. add constraint VEHICLEOWNERCOUNTRY foreign key (OWNERCOUNTRY)
68. references OWNER (COUNTRY);
69. *-- Create table*
70. CREATE TABLE ORBIT
71. (
72. class VARCHAR2(50) NOT NULL,
73. classification VARCHAR2(50),
74. eccentricity BINARY\_FLOAT,
75. apogee BINARY\_FLOAT,
76. perigee BINARY\_FLOAT,
77. satellitename VARCHAR2(50) NOT NULL,
78. celestialbodyname VARCHAR2(50) NOT NULL
79. )
80. tablespace USERS
81. PCTFREE 10
82. initrans 1
83. maxtrans 255;
84. *-- Create/Recreate primary, unique and foreign key constraints*
85. ALTER TABLE ORBIT
86. add constraint CELESTIALBODYNAME foreign key (CELESTIALBODYNAME)
87. references CELESTIALBODY (CBNAME);
88. ALTER TABLE ORBIT
89. add constraint SATELLITENAME foreign key (SATELLITENAME)
90. references SATELLITE (SATNAME);
91. *-- Create table*
92. CREATE TABLE LAUNCH
93. (
94. launchdate DATE NOT NULL,
95. location VARCHAR2(50),
96. TYPE VARCHAR2(50),
97. VehicleName VARCHAR2(50)
98. )
99. tablespace USERS
100. PCTFREE 10
101. initrans 1
102. maxtrans 255;
103. *-- Add comments to the columns*
104. COMMENT ON column LAUNCH.payoad
105. IS 'number in kilograms';
106. *-- Create/Recreate primary, unique and foreign key constraints*
107. ALTER TABLE LAUNCH
108. add constraint LAUNCHDATE primary key (LAUNCHDATE)
109. using INDEX
110. tablespace USERS
111. PCTFREE 10
112. initrans 2
113. maxtrans 255;
114. ALTER TABLE LAUNCH
115. add constraint LAUNCHID foreign key (LAUNCHID)
116. references VEHICLE (ID);

Insertion Scripts:

Test Script: Must insert to owner first as satellite uses that information

INSERT INTO OWNER

VALUES('USA', 'SpaceX', 'Commercial');

INSERT INTO SATELLITE

VALUES('Starlink-1007', 'Communication', 'SpaceX', 'USA');

SELECT \* FROM SATELLITE;

Selection scripts:

SELECT \* FROM vehicle WHERE ownercountry LIKE '%Israel%';

SELECT \* FROM vehicle WHERE ownercountry LIKE '%USA%';