```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

// Array of astronomy objects
char objects[5][20] = {
"Planet",
"Star",
"Galaxy",
"Nebula",
"Comet"
};

// Linked list node
struct Observation {
char date[20];
int objectIndex; // index of array
struct Observation *next;
};

struct Observation *head = NULL;

// Add observation
void addObservation() {
struct Observation newNode = (struct Observation)malloc(sizeof(struct Observation));

printf("\nEnter Date (DD-MM-YYYY): ");
scanf(" %[^\n]", newNode->date);

printf("\nChoose Object:\n");
for(int i = 0; i < 5; i++)
printf("%d. %s\n", i + 1, objects[i]);

printf("Enter choice (1-5): ");
scanf("%d", &newNode->objectIndex);
newNode->objectIndex--;  // convert to index

newNode->next = head;
head = newNode;

 p r i n t f ("Observation added!\n");
}
```

```
// Display observations
void displayObservations() {
if(head == NULL) {
printf("\nNo observations yet.\n");
return;
}

struct Observation *temp = head;
printf("\n===== Observation Log =====\n");

while(temp != NULL) {
printf("\nDate: %s", temp->date);
printf("\nObject: %s\n", objects[temp->objectIndex]);
printf("----------------------\n");
temp = temp->next;
}
}

int main() {
int choice;

while(1) {
printf("\n1. Add Observation");
printf("\n2. Display Observations");
printf("\n3. Exit");
printf("\nEnter choice: ");
scanf("%d", &choice);

switch(choice) {
case 1: addObservation(); break;
case 2: displayObservations(); break;
case 3: exit(0);
default: printf("\nInvalid choice!\n");
}
}
}
```