

# code.sprint<sup>MT</sup>

## TASK BOOKLET

- Final Round -

### Secondary Category

2021



DIRECTORATE FOR LEARNING &  
ASSESSMENT PROGRAMMES

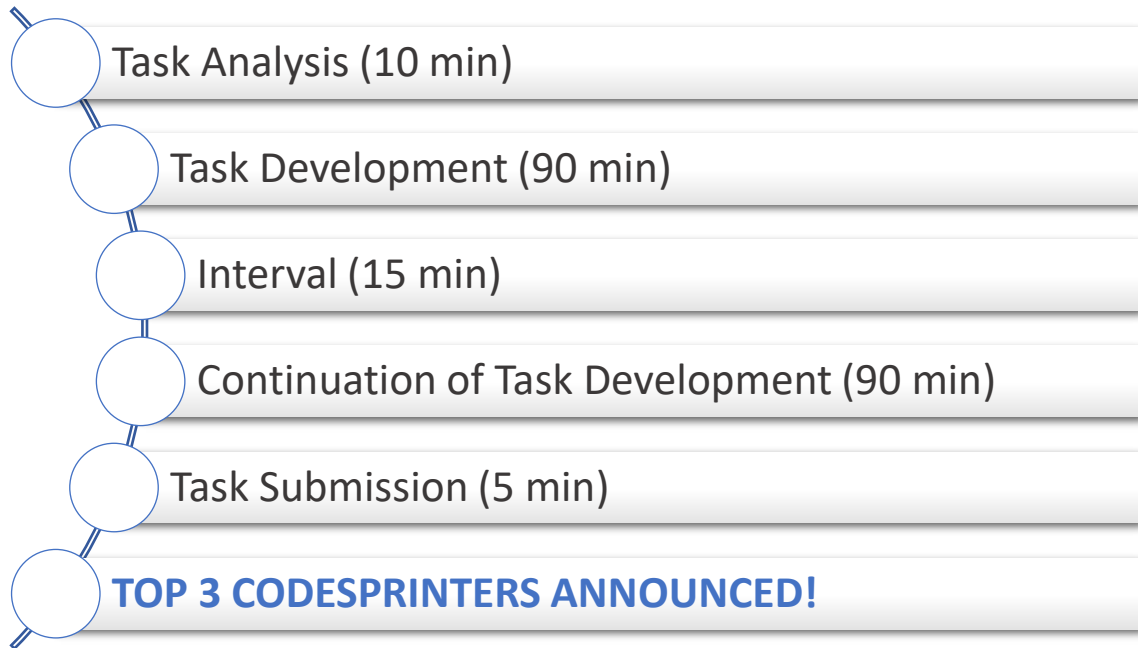
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ICE Malta



# Final Round Schedule



## SANPEI Fishing Contest (180 minutes)

Sanpei is a cheerful teenager who lives in the mountains of Tohoku, Japan, and has a passion for fishing. The original cartoon was developed in 1973, with an anime version following in 1980 which is still appealing even to this day.



Sanpei is organising a fishing trip and there is a choice to either go fishing by boat, on a rocky shore or from a sandy beach. Each fishing trip entails preparing different fishing equipment and catching different kinds of fish. Develop a text-based fishing trip contest game between the player and the computer.

### Functionality #1: Main Menu

1. Upon running the game, the user needs to enter the player name.
2. A main menu will then be displayed for the player to indicate whether to go on a fishing trip by boat, on a rocky shore or from a sandy beach, or exit the game. Check sample screenshot 1 on the right.

```
Fishing Trip
1. Boat Fishing
2. Rocky Shore Fishing
3. Sandy Beach Fishing
... E[x]it
>> Option: |
```

Screenshot 1: Main Menu

### Functionality #2: Fishing Trip Contest

1. The fishing trip is a contest between the player and the computer.
2. Each fish trip includes ten (10) fishing attempts.
3. According to the fishing trip chosen, the player and the computer can only catch fish species pertaining to the type of fishing trip chosen; i.e. from the boat, from the rocky shore or from the sandy beach, as in table 1 below.
4. The fish species have different weights, a different catching environment and a 'released back in sea' weight quota, as shown in table 1 below.

5. With every fishing attempt, both the player and the computer can either catch a fish or not. The type of fish (if caught) should be randomly generated.
6. The size of the fish caught should be randomly generated as well with sizes varying from 5gr up to the maximum fish weight.

Fish name	Maximum Weight	Environment	Release when
Bogue	Up to 100grams	Rocky	< 10grams
White Seabream (Sargo)	Up to 2000grams	Rocky /Boat	< 30grams
Red Seabream (Pagrus)	Up to 2000grams	Boat	< 30grams
Seabass	Up to 1500grams	Boat	< 20grams
Skipjack Tuna	Up to 7000grams	Boat	< 100grams
Dolphin-fish	Up to 2200grams	Boat	< 30grams
Seabream (Orata)	Up to 1500grams	Sandy	< 20grams
Black Mullet	Up to 3000grams	Sandy	< 50grams
Ray	Up to 3000grams	Sandy	< 50grams

Table 1: Fish Species

7. With every fishing attempt, the user can choose to proceed with the fish attempt or to terminate the contest. If the user chooses to proceed with the fishing attempt, the game should display the type of fish and its weight that both the player and the computer caught. If a fish is not caught, a proper message is displayed. Check sample screenshots 2 below.

```

FISHING TRIP

>> Attempt 1: [F]ishing or E[x]it: f

Louis Attard caught a 502gr Seabass
The computer caught a 1479gr Red Seabream (Pagrus)

>> Attempt 2: [F]ishing or E[x]it: f

Louis Attard caught a 1673gr White Seabream (Sargo)
The computer did not catch a fish

```

Screenshot 2: Fishing Attempts

8. In the case when the fishing trip is terminated shortly, no fishing trip statistics should be displayed, and the program shows the main menu.
9. On the other hand, if the fishing trip is completed (after all fishing attempts), the game should display the fishing trip statistics for both the player and the computer. The statistics should include: the fish species, weight, and whether released or not for every fishing attempt. Finally, the total fish weight is shown, and the game indicates whether the player or the computer has won the contest. Check sample screenshot 3 below:

FISHING TRIP RESULTS						
Louis Attard			Computer			
FISH	WEIGHT	REMARKS	FISH	WEIGHT	REMARKS	
1	Skipjack Tuna	6440gr	Kept	White Seabream (Sargo)	1738gr	Kept
2				White Seabream (Sargo)	1642gr	Kept
3	Dolphin-fish	1807gr	Kept	Seabass	632gr	Kept
4	Skipjack Tuna	3556gr	Kept	White Seabream (Sargo)	1251gr	Kept
5				Dolphin-fish	1244gr	Kept
6	Skipjack Tuna	6344gr	Kept	Skipjack Tuna	1362gr	Kept
7	Red Seabream (Pagrus)	1002gr	Kept	White Seabream (Sargo)	1739gr	Kept
8	Red Seabream (Pagrus)	7gr	Released	White Seabream (Sargo)	157gr	Kept
9				Red Seabream (Pagrus)	676gr	Kept
10	Skipjack Tuna	3074gr	Kept			
TOTAL WEIGHT		22223gr		TOTAL WEIGHT	10441gr	

LOUIS ATTARD WON

...press Enter to continue

Screenshot 3: Fishing Trip Results

### Functionality #3: Data Validation

1. The player name should not be left empty.
2. The user's menu option must be validated; i.e. fish from boat , rocky shore, sandy beach, or exit.
3. Fishing attempts must be validated; i.e. to continue with the fishing attempt or to terminate the contest.
4. Non-existing options or invalid input must be handled accordingly, and a warning message displayed.

Name the class containing the main method **RunApp**.  
Submit your program in a folder named **Sanpei\_Contest**

### Assessment Rubric

Program Functionality	User-Friendly Interface	Proper use of Comments	Proper Conventions (Camel case, meaningful var names etc.)	Name of Folder & Class/es	User Input	Suitable Prompts / Messages displayed
Randomisation of Fish Type	Randomisation of Fish Weight	Possibility that a fish is not caught	Calculation of Total Fish Weight	Player Name Validation (not left empty)	Main Menu Validation (Boat, Rocky, Sandy or Exit)	Fishing Attempts Validation (Proceed or Terminate)
Proper use of data structures (Arrays)	Code Efficiency	Extra Features (not listed in the task)	<b>Maximum Score: 32</b> <b>+ 2 for every extra feature.</b>			
0 – Not Satisfactorily   1- Partly Satisfactorily   2- Entirely Satisfactorily						



